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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I. *Amputation of the entire Lower Jaw, with disarticulation of both Condyles.* By J. M. CARNOCHAN, M. D., Professor of the Principles and Operations of Surgery in the New-York Medical College, Chief Surgeon to the New-York Emigrants' Hospital, &c., [with Plates.]

NOTWITHSTANDING the repeated instances on record of large portions of the lower jaw having been lost by accident or disease, surgeons appear to have been slow in admitting the possibility of practising amputation, either partial or total, of this bone. To Dupuytren was reserved the glory of having, in 1812, first removed, by a methodical operation, a portion of the body of the inferior maxilla; but since the innovation of the celebrated French surgeon, the operation for the partial exsection of this bone has been repeatedly performed. In the annals of surgery, there is an *allusion* made to the amputation of the *entire* lower jaw, by Walther, of Bonn; but I have not been able to trace the truth of it to an official source.

The following case will prove that this operation can be performed with success; and that the patient, although de-

prived of the chief instrument of mastication, may survive, and enjoy the usual condition of health.

Nicholas Donegan, aged 43, a farmer by occupation, was admitted into the New-York Emigrants' Hospital, March 7th, 1851. He was treated for some weeks, in the Medical Division, for typhus fever, and was afterwards transferred to the Surgical Department, under my charge. Upon examination of the patient, his face presented much tumefaction, and he complained of great pain, seated chiefly in the region occupied by the inferior maxilla. Upon carrying the examination further, the lower jaw was found to be extensively affected with necrosis. All the external appearances denoting a cachectic condition of the constitution, with extreme debility and general prostration of the vital functions, were present. The patient stated that, during his recent voyage to this country, he had received a severe blow upon the lower jaw and side of the face. This circumstance, coupled with the cachectic condition following the attack of fever, appears, as far as can be learned, to have been the origin of the disease of the bone.

A tonic course of treatment was prescribed for him, and various local applications and lotions were resorted to, in order to allay the irritation in the mouth, and abate the fetor emanating from the disease. In a short time, the teeth became loose, and had to be extracted; the alveolar ridge became partially denuded; the swelling increased towards and over the rami and condyles; and the patient complained of excruciating suffering and depression. Nutritious diet and the various therapeutic agents, proper to improve and renovate his system, were persevered in; and soothing and astringent lotions and applications were unremittingly used. This plan of treatment was pursued for about three months; at the expiration of which time, it became evident that the disease of the osseous tissue was too deeply rooted to be affected by mere remedial agents. In fact, they were found to be entirely unavailing. The disease had now apparently seized upon the entire jaw; pus was abundantly secreted into the cavity of the mouth; the saliva was also thrown out in great quantity; and the fetor became almost intolerable to the patient himself,

and to those around him in the ward. Constitutional irritation and hectic of a grave character had also set in; diarrhœa made its attack; and the patient was gradually sinking under the complications of his disease, and the terrific pain by which he was unceasingly tortured. It was apparent to me that the speedy death of the patient could only be avoided by removing the source of such intense suffering and constitutional derangement. The integuments over the disease, although much tumified, œdematous, tense and red, remained free from ulceration; the vitiated secretions taking their exit by the cavity of the mouth.

On the 13th of July, a consultation was held, and an operation for the removal of the bone decided upon. The formidable nature of the operation proposed, together with the debilitated and cachectic condition of the patient, induced me to enter into full explanations, and to inform him of the great risk that would attend it. The matter was then left to himself, and at his urgent request, I proceeded to use my efforts for his relief. It was not thought expedient to administer either chloroform or ether, on account of the liability to asphyxia from the passage of blood into the wind-pipe.

The patient being seated on a chair, and the assistants properly arranged, an incision was first made, commencing opposite the left condyle, passing downwards towards the angle of the jaw, ranging at about two lines in front of the posterior border of the ramus, and extending thence along the base of the jaw, to terminate by a slight curve on the mesial line, half an inch below the free margin of the lower lip. The bone was now partially laid bare, by dissecting upwards the tissues of the cheek, and by reflecting downwards, for a short distance, the lower edge of the incision. The tissues forming the floor of the mouth, and situated upon the inner surface of the body of the bone, were separated from their attachments from a point near the mesial line, as far back as the angle of the jaw. The attachments of the buccinator were next divided. The facial artery, the sub-mental and the sub-lingual, already cut, were then secured by ligature. It was now seen that the bone was partially separated at the symphysis, and that the necrosis was complete from that point to the inferior portion

of the ramus. The ramus itself was found diseased; the periosteum externally was inflamed, and in some parts easily detached. The tongue was now grasped and held forwards, while the attachments of the genio-hyo-glossi muscles were divided. A double ligature was passed through the anterior part of the root of the tongue, and entrusted to an assistant, in order to prevent its retraction upon the superior orifice of the larynx. A fatal case from the falling backwards of the tongue, occurred a few years ago, in the practice of an eminent surgeon of this city; and a similar misfortune should always be guarded against, when the muscular attachments of the tongue to the posterior part of the bone behind the symphysis are divided. A slight force exercised upon the left half of the body of the jaw, broke the connection at the symphysis and at the angle, and this part was easily removed. The next step consisted in the removal of the left ramus. The external surface of the branch of the jaw, and of the temporo-maxillary articulation were exposed, by dissecting the masseter upwards, as far as the zygomatic arch. Seizing the ramus in order to pull the coronoid process downwards below the zygoma, it was found that the temporal muscle was rigidly and permanently retracted. This circumstance presented an unexpected difficulty, which was increased by the unusual development of this apophysis, and by the retraction also of the pterygoid muscles. Passing the forefinger along the inner aspect of the ramus, the situation of the internal and external carotids was sought for and recognised. The insertion of the pterygoideus internus was then felt and cut, grazing the bone in doing so; the lingual nerve, here in close proximity, being carefully avoided. Passing still higher up, the orifice of the dental canal, indicated by an osseous projection, could be felt; and the instrument, still guided by the finger, divided the dental artery and nerve. The knife was thus made to separate the tissues attached to the inner face of the bone, as high up as a point situated about a line below the sigmoid notch, between the condyle and the coronoid process. On a level with this point, at the posterior margin of the ramus, the transverse facial, internal maxillary and temporal arteries

form a kind of tripod, the two last named branches of which should not be divided, if possible. It now became necessary to detach the tendon of the temporal muscle. As the coronoid process could not be depressed, I proceeded cautiously, by dividing the lower attachments of the tendon, by means of blunt curved scissors; and by using them and a probe-pointed bistoury, alternately—keeping close to the bone—a considerable portion of the tendon was divided. Deeming it not prudent to use freely a sharp cutting instrument, deep in the temporal fossa, where the coronoid process was situated, I made use of a pair of bone scissors, curved flatwise; and by passing the blades of this instrument over the process, as far as its position would permit, the temporal muscle was detached; a small portion of the apex of the coronoid process being cut through. The ramus, now movable, could be made use of as a lever to aid in the disarticulation of the bone.

In order to effect safely the disarticulation of the condyle, I began by penetrating into the joint, by cutting the ligaments from *before backwards*, and from *without inwards*, The articulation was thus opened sufficiently to allow the condyle to be completely luxated. Blunt scissors were now used to cut carefully the internal part of the capsule and the maxillary insertion of the external pterygoid muscle; and by a slow movement of rotation of the ramus upon its axis, the condyle was detached, and the operation was completed on this side. By proceeding to disarticulate by the method here described, injury to the temporal artery, as well as to the internal maxillary, was avoided.

To effect the removal of the other half of the lower jaw, the same incision was made on the opposite side, so as to meet the first on the mesial line. The dissection was also similar; and by disarticulating the second condyle in the same manner as had been observed for the first, I was successful again in avoiding lesion of the temporal and internal maxillary arteries.

The annexed plate, No. 1, is a correct delineation of the inferior maxilla, after maceration, and exhibits the portions of the bone as they became separated during the operation.

The object I had in view, in shaping the external incisions,

in such a way that an inverted V should be formed in front of the insertion of the genio-hyo-glossi muscles, was to leave a portion of integument so fashioned, that the suture-pins could be passed through the integument, and, at the same time, through the root of the tongue, at the point where its muscles had been detached from the inner surface of the jaw. The several tissues becoming thus incorporated in the resulting cicatrix, served to form a new bridle, somewhat analogous to the natural muscular attachments of the tongue to the genial processes.

The amount of blood lost was inconsiderable; the arteries divided, besides those mentioned, were the transverse facial, the anterior masseteric, the anterior parotidean, &c.; and these were secured as soon as divided. The bone being disarticulated, the flaps were adjusted, and the lips of the incision united, by eighteen points of twisted suture. The tongue was retained forwards after the dressing, by attaching the ends of the ligature already passed through its base, on each side, to a bandage passed vertically around the head. Forty-eight hours after the operation, the first dressing was removed. Union by first intention had taken place, and eight of the suture-pins were taken out. In ninety-six hours, the wound was again examined. Union was found to be entirely completed, and the remaining pins were removed. On the seventh day, it was thought safe to remove the ligature from the tongue. On the tenth day, the arterial ligatures came away; and on the fourteenth day, the patient was pronounced cured; not having had an untoward symptom since the performance of the operation.

The operation occupied fifty-five minutes, the patient having been allowed intervals of repose to recruit. It was performed in the presence of a number of professional gentlemen; and I was ably assisted by my colleague, Dr. A. V. Williams, by Drs. Dewees and Dixon, of New-York, and by Drs. Thompson, Whitehead, Smith and Bailey, resident assistants attached to the surgical staff of the Hospital.

The present appearance of the patient, upon reference to the accompanying plate, No. 2, will be seen to present much less deformity than might be expected from the severe muti-

lation which he has undergone. His general condition and health are good; and he is now able to perform any ordinary vocation. The ducts of Steno, on both sides, were necessarily divided in the superficial incisions; but there is no salivary fistula, the saliva taking its course into the mouth. The division of the branches of the facial nerve has not been followed by paralysis of the face; although for a time after the reunion of the incision, the orbicularis palpebrarum of the right side appeared to have lost its action to some extent. In grasping the chin, a thin cartilaginous deposit can now be felt, extending, crescent-shaped, for about three inches, and occupying the position at which the bone was most diseased. Higher up, toward the glenoid cavity, no deposition of bone or cartilage has taken place. Injury to the bag of the pharynx, during the detachment of the soft tissues from the angle of the jaw, was carefully avoided, and fluids could be swallowed, in small quantities, immediately after the operation. Deglutition is now effected without difficulty. Articulation is sufficiently distinct to render his words intelligible, and although unable to masticate, he does not complain of difficulty in eating, breaking up, as he says he does, his food between the tongue and the palatal vault of the superior maxillæ.

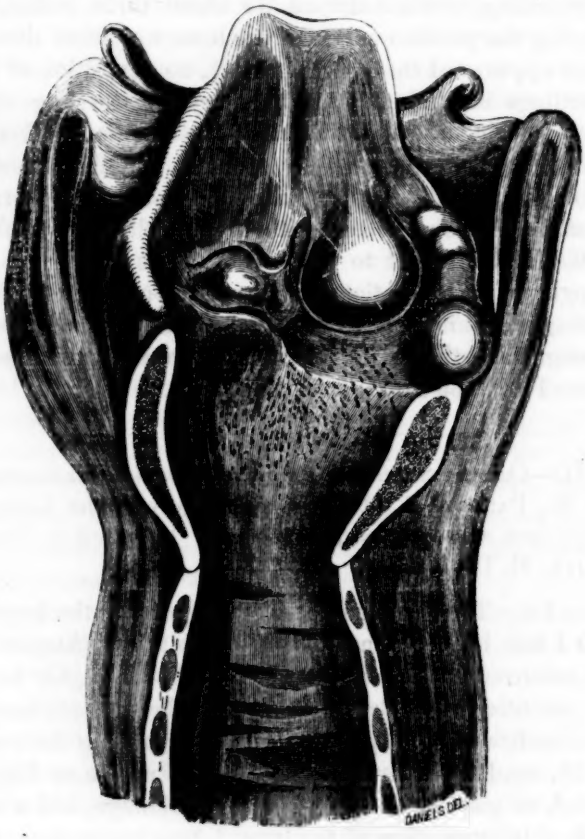
New-York, 759 Broadway, Dec. 1851.

ART. II.—*Cases in Surgery. Polypus Laryngis, with illustrations.* By W. PARKER, M. D., Prof. of Surgery in the College of Physicians and Surgeons, New-York. Reported by STEPHEN SMITH, M. D.

Case 1st.—The following case of polypus of the larynx, to which I was hastily summoned in consultation, August 28th, 1850, occurred in the practice of Dr. Cullen, a highly respectable practitioner of Brooklyn, L. I. The patient, however, expired a few minutes previously to my reaching the house.

J. D., aged 60, weaver by occupation, native of England, married, of good habits, and healthy parentage, had a severe attack of inflammation of the lungs fifteen years since, which it was thought he could not survive: he however at length recovered, and pursued his trade until six years ago, when he

came to America. In this country he was engaged in an establishment where, most of the time, he was enveloped in steam. While in this situation, he contracted a severe cold, accompanied by a hoarseness, which continued gradually increasing in severity up to the time of his death. Succeeding this, he began to suffer difficulty of respiration, and often when the weather was cold and damp the dyspnœa would be so great as to threaten immediate suffocation. For a time his general health continued good, but as the disease advanced, deglutition began to be attended with much uneasiness about



the larynx, amounting often to threatened suffocation, and finally prevented him from swallowing any thing but soft or

semi-fluid food. He now began to emaciate. On the day of his death, he was able to walk about his room, but he remarked to his wife that he could not live long. He died suddenly, and as if with œdema glottidis.

Autopsy, sixteen hours after death. Both lungs free from adhesions, but distended with air, owing to the great degree of emphysema which existed: no tubercles were discovered. The trachea and larynx were removed, and upon laying them open, the *causa mortis* was revealed, viz., a polypus attached by a pedicle to the right superior chorda vocalis; the body being of the size of a chestnut, and occupying the rima glottidis. The cartilages of the larynx were ossified. No other signs of disease in the thoracic or abdominal cavities.

This polypus was of the kind called mucous polypus. A portion of the apex of the right lung, of the size of an orange, was removed after being firmly ligatured; this, when dried, was incised, and exhibited in a striking manner the degree of emphysema existing, many of the vesicles being of the size of a filbert.

Case 2d.—M. B., a boy aged 2 years, of good constitution, and hitherto having enjoyed good health, was brought to the *college clinique* by his mother, who gave the following history of his case:—About eight months previously he had an attack of croup, from which he never seemed to recover. His voice became hoarse, his breathing, always obstructed, at times became very difficult and almost suffocating, attended by a croupal cough; appetite good, bowels regular. The case was placed in charge of Mr. Osborne, now a physician of this city, who administered remedies suited to his condition. The symptoms increased in severity, especially the dyspnœa, and tracheotomy was finally thought to be indicated. It was not, however, performed, and the patient died in a paroxysm of dyspnœa nine months after his first attack.

Autopsy, 12 hours after death. Examination confined to the larynx. Upon laying this organ open, after being removed from the body, three warty excrescences were found surrounding the glottis and in the larynx, the former being so situated as nearly to close the rima. The trachea contained

considerable tenacious mucus, which, lodging in the glottis, must have greatly increased the difficulty of respiration.

The drawings represent very accurately these morbid specimens, as they appeared after recent dissection.

Remarks.—Morbid growths within the larynx, of which the foregoing cases are striking examples, are of rare and almost necessarily fatal occurrence. Aside from the obscurity of the symptoms which attend their growth, rendering their diagnosis at best difficult, and generally impossible, they are little amenable to any form of treatment. The first case is that of true pediculated polypus of the larynx, while the second is more nearly allied to warty excrescence; they are, however, classified together by the only writer who has made this disease the subject of investigation, (Ehrman.)

The following cases have been collected from American journals, and constitute, as nearly as we can ascertain from an extended examination, our bibliography on this subject. In the *Trans. of the Phisico-Medical Soc. of New-York*, vol. i. p. 413, a case of "Remarkable Disease of the Larynx and Tra-

chea," illustrated by a plate, is reported by Dr. J. C. Cheesman, of which the following is a synopsis:

Richards, aged four years, in April, 1817, was found laboring under great difficulty of breathing; tongue slightly furred, pulse full, but neither frequent nor hard; bowels regular, skin cool and a little moist, some cough, but not tight. From his mother's account, it appeared that he had been troubled with difficulty of breathing for six or eight weeks, which was thought to resemble asthma; and that a high fever had accompanied its first attack. There was a difficulty in ascertaining the precise nature of the disease, but the little patient pointed out its seat by applying its hand frequently to the upper part of the throat. On the third and last visit, the child was breathing with extreme difficulty, but without the peculiar croaking which is so usual in cynanche trachealis. The pulse was very feeble; considerable stupor existed, and when he was roused there was a peculiar staring of his eyes. Five hours after this visit he died.

Autopsy.—We directed our attention in the dissection to the parts about the throat; all appeared to be perfectly natural except the larynx and trachea, which had taken on a disposition to the formation of *verrucæ*, or fleshy excrescences very much resembling them. The under surface of the epiglottis was studded with this peculiar disease, and a cluster about the size of a pea had formed about one inch and a half from the opening of the larynx, but the most considerable portion of disease was immediately connected with the arytenoid cartilages, and of such magnitude as very nearly to close the rima laryngis.

A case of polypus attached to the epiglottis was reported by Dr. H. Green, to the *New-York Med. and Surg. Soc.* (*New-York Jour. Med.*, vol. vi. p. 22.) "The patient was a girl, aged nine years, had been brought to him, as was supposed, with enlarged tonsils. The symptoms attendant upon the case were difficulty of breathing, and more particularly at night. On examination, he found that the tonsils were not sufficiently enlarged to require removal. But extending his observation and pressing down the base of the tongue, a tumor, hanging by a pedicle, was discovered about the size of a grape,

and appeared to be attached to the epiglottis. The pedicle was cut with a scissors, and the tumor, which was a fibrous polypus, was removed."

The following case of "Tumor within the Larynx," is taken from *Morland's Extracts from the Bost. Soc. for Med. Improvement.* (*Amer. Jour. Med. Sci.* July, 1851, p. 37.) The patient was a man about fifty years of age, very fleshy, and in robust health, except for the trouble in the throat. For twelve years or more there had been hoarseness, with wheezing, and for the last two or three years complete aphonia; there was also much dyspnœa on over-exertion, and, when asleep, a distressing noise as from impending suffocation. His death at last was rather sudden, and seemed owing to congestion of the lungs. The tumor is about seven lines in diameter, well defined, of a rounded form, rough on the surface like a syphilitic wart, fleshy in consistence, and having a somewhat fibro-cellular appearance on incision. Its situation is just below the ventricles of the larynx posteriorly, and it is attached upon each side broadly, and to about an equal extent, the intermediate portion being free. The following microscopic appearances were observed by Dr. W. J. Burnett: "The primitive original basis of this formation supposed to be an epithelial structure. Pavement epithelial cells of various ages were everywhere plentifully present, being folded in by fibrous tissue, which as an hypertrophy of that normally belonging to the part, is always liable to accompany the abnormal production of simple individual cell-structures forming the material basis on which the latter rest."

From these scanty materials it is impossible to draw any general conclusions. Prof. Ehrman, of Strasbourg, whose attention was called to this subject from having had two cases under his own observation, has collected the reports of all the well-authenticated cases of this affection which he has found on record, amounting, in all, to thirty-six—five of which occurred in animals. From his work,* and other sources, we gather the following particulars:

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* *Musiée d'Anatomie de la Faculté de Medécine de Strasbourg. Histoire des Polypes du Larynx.* Par C. H. Ehrman, Professeur à la Faculté

Polypus of the larynx is more frequent in the adult than in the child, and in the male than in the female. Of 24 cases in which the age is given, 17 occurred in the adult, and 7 in the child; and of 29 in which the sex is given, 21 were in males, and 8 in females. No particular condition of system would seem to predispose to this affection. In 4 cases it was engrafted upon phthisis pulmonalis; in 3, upon syphilis; in 2, upon a scrofulous habit; in 1, upon a cancerous degeneration of the lungs, liver and thyroid body; of the remainder no note is made of any constitutional difficulty.

With respect to the *origin* of laryngeal polypi, nothing definitely can be determined; but they probably spring from the same local causes as similar growths elsewhere. In several cases, the larynx had previously been the seat of acute, and subsequently, of chronic inflammation, which would seem to have terminated in these morbid growths. Such is the history of the second case in this paper. Two others, of a similar character, are reported in M. Ehrman's work, (*Obs.* 7 *and* 17,) in all of which the first attack was that of croup, and, following it, the symptoms of polypus were gradually developed. Dr. Watson records the case of a boy, aged eleven, whose first attack was whooping-cough, hoarseness, difficult respiration, and loss of voice followed, and he died several months after, in a paroxysm of dyspnœa. On examining the body, there was found, "at the very top of the larynx, involving the base of the epiglottis and the vocal chords, a considerable warty growth, closing the rima glottidis almost entirely. The excrescences sprung *chiefly* from one continuous base, and branched out precisely after the manner of what is regularly called a seedy wart. There were, however, several distinct smaller growths or warts; the main excrescence, having several heads, passed upwards from and through the rima, and so came to act partly as a valve during inspiration, which was always sensibly more difficult than expiration."*

Siemon Dawosky, who reported to *Hufeland's Journal* the

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de Medécine de Strasbourg, &c. Strasbourg, 1850. See *Review, Amer. Jour. Med. Sci.* April, 1851, p. 410.

* *Lect. on Practice of Physic,* Am. ed. p. 451.

case contained in Observation 17, of Ehrman's work, remarks:—I regard it important to notice these repeated attacks of croup, for I am persuaded that it is to this disposition, and the frequent return of this complaint, that we must attribute the development and unfortunate issue of the affection to which this child at last succumbed.

In four cases the patients, as already stated, were affected with phthisis pulmonalis, and others were exposed by occupation to vicissitudes of weather, and suffered from repeated attacks of catarrhal affections. But it is impossible, with the paucity of facts in our possession, to determine, with any degree of certainty, the influence of inflammation in exciting these peculiar growths; nor is it yet established in the pathology of polypi in other parts of the system, that inflammation is essential to their primitive formation.

In several cases these growths have resembled a cauliflower, and are then ascribed by M. Rayer to a *syphilitic* taint. This author met with such an instance* in a female, fifty years of age. A cauliflower excrescence was attached near the superior border of the left ventricle of the larynx, and expanded above the orifice of the glottis. It was attended with a suffocative dyspnœa, and a peculiar whistling sound of the air in the larynx, especially during inspiration. This latter was well marked when the stethoscope was applied over the larynx. It was detected during life by M. Roux, upon examination with the finger. M. Ferrus has related a case† in which the glottis was obstructed by a tumor, of the size of an almond, adhering by a broad base to the left ventricle; its surface was irregular and mammillated, but of the ordinary color of the mucous membrane of the larynx. Andral‡ cites a case, in which the superior aperture of the larynx was almost completely obstructed by a whitish cauliflower vegetation, which was evidently continuous by a broad basis with the mucous membrane. He however considers these bodies

* *Maladies de la Peau*, tome ii. p. 422. *Et Atlas*, pl. xv. fig. 21.
† *Archives Générales, tre series*, t. v. p. 559.
‡ *Anatomie Pathol.* t. ii. p. 472.

merely forms of circumscribed hypertrophy of the mucous membrane.

Under the head of *Pathological Anatomy*, *Histology*, M. Ehrman observes:—The form and structure of polypous tumors are variable; they are sometimes roundish, often of an irregular shape, united in clusters, granulated, lobulated, most frequently pediculated; they sometimes have the appearance of condylomata. Their attachments, whether broad or slender, single or multiple, are rarely traversed by blood-vessels of any considerable size. They may occupy all parts of the internal surface of the larynx, but we find them attached by preference about the glottis, especially to the inferior vocal ligaments; more rarely they are found in the substance of the aryteno-epiglottic ligaments, and in the ventricles of Morgagni. The epiglottis is especially the seat of the supposed syphilitic vegetations.

Polypus of the larynx is constituted sometimes of fibrous or fibro-cellular tissue; and in other cases of all the elements of the mucous membrane united, but modified in character. When the tumor belongs to the first class, it assumes the form of a firm and compact mass, resembling that which exists in the proper fibrous tumors; in this respect, the tissue composing this species of polypus may be compared to that of the ligaments of the glottis, or to that which is found in their immediate vicinity; thus we see the pedicles of these tumors originating in the fibrous appendages, and blending with the fibrous element of the vocal cords, an observation which has been already made by Albers. The tissue composing these tumors is traversed by very minute blood-vessels, and their external investment consists of a thin layer of the mucous membrane, modified in its structure. The microscopic appearances of a polypous tumor of this kind were the following: the superficial layer consisted of conical, nucleated corpuscles, which, united together, formed a kind of mosaic; some of these cells were furnished with very fine vibratory cilia. Beneath this first layer, and forming the principal part of the tumor, were found fusiform bodies, in different degrees of development, with rounded central nuclei; these were

evidently the elements of a proper fibrous tissue; the last and deepest layer was composed of very delicate cell-fibres.

In respect to the second class of tumors, or those consisting of the modified elements of mucous membrane, after giving a histological analysis of their structure, he concludes: It is probable, then, as the result of these data, that hypertrophy of the mucous membrane involves especially its epithelial layer, since it is this which we find in superabundance in the mass which forms this variety of tumor; the areolar tissue, which is met with in it, belongs, as is well known, to the structure of all the mucous membranes; and if some fibrous tissue should occasionally be found at the base of these vegetations, it is as if for the purpose of forming a transition between the true mucous polypus and the fibrous. M. Lebert, who has devoted particular attention to the study of tumors of the mucous membranes, would substitute for the term *polypi*, as applied to this latter class, the title of excrescences, or hypertrophies of the mucous tissue, of which he distinguishes three forms: 1st, of the epithelium, 2d, of a circumscribed portion of the mucous membrane, and 3d, of a portion of the submucous cellular tissue; with this opinion M. Ehrman coincides.

The *lungs* are the only organs that exhibit any very constant lesion, and they are generally emphysematous; this condition results from the severe and prolonged efforts at respiration. It may be interesting to notice that of five cases in children in whom the first symptoms were those of croup, in four the growth within the larynx had the warty appearance.

"The symptoms indicative of the existence of polypus of the larynx," says Ryland, "are too vague and undefined to enable us to lay down any positive rules of diagnosis. They appear to be an alteration or extinction of the voice; occasional attacks of dyspnœa, with alarming suffocative seizures, in the intervals, between which the respiration is perfectly free; a sense of uneasiness and of constriction about the laryngeal region, and slight difficulty of deglutition. In some of the cases, one only of these symptoms was present; in others, all or nearly all of them, were experienced in a greater

or less degree; the most constant, however, were the occasional dyspnœa, and the suffocative attacks." In a case observed by Gèrardin, the first symptom was a sudden and inexplicable loss of the voice, which was not followed by cough or dyspnœa until several months after, nor by death until the expiration of two years. In the second case above reported, as also in Dr. Cheesman's, the primary symptoms were more nearly those of croup. M. Ehrman records similar cases. From this latter author we learn that *hoarseness and loss of voice* are the most constant symptoms, the former indicating some change in the mucous membrane of the vocal cords, and the latter a more advanced affection of the edges of the glottis. *Cough* is generally present, but has no particular diagnostic value, as it is a common symptom in diseases of the lungs. The *sensation of a foreign body* in the larynx in efforts at expectoration or deglutition, occurs in an advanced stage of the disease; in the case that heads this article the patient was for some time previous to death unable to swallow solid food. *Dyspnœa* is a constant symptom, commencing insensibly, and gradually increasing in severity, or appearing suddenly, and threatening immediate suffocation.

In the *diagnosis* of this complaint the *expectoration*, when it contains masses of the broken down polypus tissue, becomes pathognomonic, but otherwise is of no value. As this is a sign of importance as well as of rare occurrence, we will illustrate it with several cases.

In a case reported by Otto, (*Ehrman, Op. Cit. Obs.* 7,) a man, aged 65, otherwise healthy, was affected several years with a hoarseness, which he attributed to a cold, and from which he gradually lost his voice. He rarely coughed, had no pain about the larynx, but experienced a disagreeable sensation as of a foreign body, closing the larynx whenever he swallowed solid substances or expectorated mucus. A physician administered external and internal remedies suited to his case; several days after which, in a paroxysm of coughing,

* *Treatise on the Diseases and Injuries of the Larynx. By F. Ryland. London*, 1837, p. 229.

† *Ehrman, Op. Cit.* p. 16.

he ejected a small *globular, fleshy, red and solid mass*, of the size of a currant, and two days after, a *similar substance* of the volume of a small cherry; following this the voice and facility of respiration were restored. Several weeks later, the patient expectorated, for the third time, a *fleshy mass* of the size of a pea, having a very slender pedicle. The roughness of the voice and dyspnœa, however, quickly returned; the latter to such a degree that the abdominal muscles became very painful, owing to their violent contraction during respiration. A slight cough would sometimes cause the expulsion of a very viscid and tenacious matter, occasionally mixed with blood. The powers of the system gradually declined, and the sufferer died of a *slow suffocation*.

The larynx was found almost entirely ossified, and the epiglottis loaded with fat. *A fleshy and nodulated tumor* of large size was suspended from the inferior vocal ligament of each side, springing from slender pedicles, surrounded by fibrous appendages; it was consequently movable, and was formed by the union of three excrescences, each being of the size of a hazelnut; they were of a rounded form, irregular surface, very firm, elastic, and of a pale red color. One of them, situated above the glottis, was unable, from its size, to enter it; but the other two placed below this opening, closed it so completely during expiration, that suffocation must inevitably follow.

M. Stallard* has recorded the case of a woman who presented the symptoms of bronchitis, with a cough and intense dyspnœa. She died suddenly, in a *paroxysm of coughing;* and on post mortem examination, a *polypous mass*, as large as an almond, and having a pedicle nearly three-fourths of an inch in length, was found detached in the trachea. This tumor had its origin in the trachea, instead of in the larynx. Death occurred, doubtless, from the inability of the patient to expel the mass through the glottis. A case somewhat similar to the last, but having a more favorable termination, has been recently reported by Dr. Pauli.† A tailor, 36 years of age,

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affected for two years with a dry cough, accompanied with very marked emaciation, and complaining continually of a foreign body in his throat, was supposed to be affected with phthisis. One morning, in a violent paroxysm of coughing, he threw up a vascular polypus the length of half a finger, and from this moment he began slowly to recover.

A female who came under the care of M. Ehrman, Obs. 29, and from whose larynx he successfully removed a polypus by an external incision, besides having this characteristic expectoration, was able, by a rapid movement of expiration and inspiration, to imitate the sound of a valve alternately opening and closing—*le bruit de soupape.* *Respiration* thus modified becomes strongly diagnostic. In regard to the *stethoscope*, M. Ehrman thinks it may furnish to the cultivated ear accurate notions of the presence of polypus in the larynx. Upon applying this instrument at different points over the larynx, it is probable that a sort of *whistling* would be heard, more especially during expiration.

The *treatment* of polypus of the larynx may be considered either palliative or radical, the former involving the operation of laryngotomy or tracheotomy, and the latter the removal of the growth by caustic or excision. Laryngotomy, as a palliative measure, has been performed three times—the patient in every instance being in danger of immediate suffocation, and the operator ignorant of the nature of the disease. The first was a patient of Trousseau and Belloc,* 1835. "The man was forty-two years old, and had enjoyed good health until about eighteen months before the operation was performed, during which time the polypus had been growing. The larynx was opened only when it was evident that the patient would otherwise die speedily of suffocation; some arterial and venous hemorrhage occurred when the incision was made, but this was arrested by slight compression. As soon as the canula was introduced into the opening, the patient's breathing was relieved, and he continued to do well during the five following days; but then an attack of gangrenous pleuropneumonia came on, of which he died in the course of twenty-

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In 1834, M. Brauers opened the larynx of a man suffering from this affection, and cauterized the excrescences which filled its cavity with the acid nitrate of mercury; but instead of destroying them, they seemed to spring up with increased vigor, "always in direct ratio to the number of cauterizations." He finally applied the actual cautery, which at first caused an inflammatory engorgement posterior to the larynx, and subsequently, by its repeated application, induration of the larynx itself; the patient, though living at the date of the report, was not expected to survive.

In 1844, M. Ehrman performed the operation of laryngotracheotomy, excised the polypous tumor, and saved his patient's life. The subject of this case was a female, thirty-three years of age, who exhibited the most diagnostic symptoms of polypus of the larynx, such as the expectoration of fleshy masses, the sensation of a foreign body in the larynx, the peculiar valve-like sound in respiration, &c. The incision included the cricoid cartilage, and the first two rings of the trachea; but very little blood flowed, and upon the introduction of the canula, complete relief followed. After allowing the patient to rest forty-eight hours, and recover from her depression, he proceeded to complete the operation of laryngotomy and remove the tumor. The canula being retained in the wound, he continued his incision along the prominent line of the thyroid cartilage towards the hyoid bone. Upon separating the thyroid cartilage, and removing the blood, the polypous excrescence was discovered, attached to the left inferior ligament of the glottis; the mass was then

excised with a bistoury, and removed in three portions, the whole having the appearance of a cauliflower. The patient convalesced rapidly. On the twenty-first day the air ceased to pass through the external opening, and at the end of the month she was quite well and the wound healed, the aphonia alone persisting. But at the end of seven months she was attacked with typhoid fever, of which she died. On examining the larynx the left inferior vocal ligament to which the polypus was attached, presented a few very small granulations upon its surface, and one rather larger than the rest was situated at the point of junction of the two inferior vocal ligaments.

The last operation for this affection which we are able to notice, was performed in 1846, by Dr. Green, of this city; the details of this case have already been given.

In reviewing this subject we conclude that polypus of the larynx presents the most decided indications for the performance of bronchotomy. The disease is entirely local, and involves no constant local or general condition which can forbid the operation. If resorted to as a palliative measure, it would involve the necessity of the respiration being carried on afterwards through the artificial opening. But to M. Ehrman belongs the honor of having first effected a radical cure by ablation of the offending growth through an external incision; an operation which the illustrious Stromeyer, President of the Scientific Congress which assembled at Aix la Chapelle, in 1847, declared to be one of the most brilliant achievements in modern surgery. Much of the success in this case is attributed by the operator to the circumstance that the patient was allowed to recover from the depression of the first part of the operation before it was completed. We recommend this operation as indicated by the nature of the case, especially when the polypus has a pedicle, and by the success which has attended its first performance.

ART. III.—*A statistical account of the Fractures of the Skull, occurring in the New-York Hospital, during the twelve years elapsing between the first of January,* 1839, *and the first of April,* 1851. By FREDERICK D. LENTE, M. D., late Resident Surgeon.

Of all the injuries which fall under the care of the surgeon, those of the head are the most perplexing, as regards their diag-

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Of all the injuries which fall under the care of the surgeon, those of the head are the most perplexing, as regards their diag-

nosis and treatment, The uncertainty as to the exact nature and extent of the injury, whether it be merely a concussion of the brain, or a compression by extravasation, or a fracture; if extravasation, whether it be on this side of the head or that; if a fracture, whether it be of the calvarium or base; whether it be such as to admit of hope of relief by an operation;—all these doubts, and many more, often present themselves to the minds of the most experienced surgeon who may be called to this injury, and necessarily raise points of difference between those who may be summoned for a consultation, to their great annoyance and discredit. Should the fracture be a compound one, and no one can, in all cases, state positively whether there be a fracture, unless it is compound, the matter is much simplified; but, even then, the differences which may arise as to the propriety of an operation, as to the extent of the fracture or of the depression, may still be irreconcilable.

It may not appear a difficult matter to those who have derived most of their information concerning these injuries from the books, to decide these knotty points. The symptoms of each lesion are there so clearly laid down, and the rules of conduct applicable thereto so strictly enforced, that a doubt as to the diagnosis, or a hesitation as to their mode of treatment, would seem superfluous. But, unfortunately, when the practitioner has had opportunities of applying these rules to practice, he has perhaps seen, in the progress and termination of a number of successive cases, the exact converse of them to be true, and has, perhaps, arrived at the conclusion that the books are of very little service to him in an emergency, and that each case has its own history, and requires more of a clear and solid judgment than a brain full of established rules of conduct. It is not only in the beginning of a case, when the propriety of an operation is to be decided, that difficulties arise. They are even more perplexing and difficult to resolve during the after treatment, when inflammation, delirium, &c., are to be combated, or, if possible, prevented. It is here that incessant watchfulness, and a calm judgment, establish their superiority over "authorities," however high they may be. It is here that we sometimes have to approach the patient, to use the expression of an eminent surgeon, "with the lancet in one hand, and the brandy bottle in the other." For, while depletion may have appeared the only resource at one moment, prompt stimulation may be called for in the next; and thus the scale of life is balanced for days, and sometimes for weeks.

If any one should suppose that the annoyance and difficulty of these cases have been exaggerated, let him appeal to those who have seen the progress, and have had the responsibility of the treatment of not one, but many of them. We do not, by any means, intend to assert that authorities are to be entirely disregarded, or that their precepts are not useful to us; they serve as a foundation to build upon, or as a guide to follow, when our judgment is totally at fault, or as a screen to shield us when our best directed efforts have been fruitless. Authorities are, undoubtedly, valuable in all cases; only too much deference must not be paid to them in the minutiæ of treatment. For, it is a fact well known, especially in medical experience, that every writer has had certain preconceived notions, and has at times advanced certain theories, to the support of which his subsequent experience, and his recorded facts have been, in some measure, moulded. From a consciousness of this fact, surgeons have, of late years, come to regard *statistics* as the best authority in points of difficulty and disagreement. These are, or ought to be, stern records of what actually occurred in each case, and just as it occurred; and, as such, they are valuable as a guide, provided they are sufficiently extensive to admit of general inferences. On some points in surgery, and with regard to certain injuries, statistics have already, and justly had their influence on surgical practice. But, in the important class of *injuries of the head*, little has been done in this way, and it is with a view of affording a small contribution to this branch of the subject, that we have compiled the following table. The difficulties in the way of compiling useful statistics of fractures of the skull are great. We should have the history of each case from the moment of the injury; we should have strict record of the condition of the patient previous to, and after the operation of trephining, of the important changes that take place from day to day, and of the *post mortem* appearances. We need not say that these difficulties have not been overcome in our present effort, as this will be apparent to the reader throughout the table; but, such as it is, we offer it to the medical public, in the hope that, as a page in the history of the injuries to which it relates, and in connection with the more profitable labours of others in the same field, it may not prove useless to the cause. It is complete as the means at our command, and the ability of the compiler would allow.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
1	M.	12	Apprentice.	Feb. 8.	Feb. 8.	Died.	Fracture of base; lacera- of brain.
2	M.	50	Carpenter.	Dec. 29.	Jan. 23.	Died.	Simple fracture extending to base; abscesses.
3	M.	38	Coachman.	Jan. 21.	Jan. 21.	Died.	Extravasation on *right* side. Fracture of base.
4	M.	18	Clerk.	Feb. 7.	Mar. 11.	Cured.	
5	M.	45	Printer.	Feb. 27.	" 3.	Died.	No autopsy obtained.
6	M.	30	Laborer.	Jan. 29.	Feb. 22.	Cured.	
7	M.	32	Mason.	May 23.	May 23.	Died.	Fracture of base, and lace- ration of brain.
8	M.	30	"	" 25.	" 25.	Died.	Fracture of base.
9	M.	35	Sash maker.	Nov. 9.	Nov. 18.	Died.	Fract. of external table, a mere fissure, the inter- nal driven. No inflam- mation or abscess.
10	M.	39	Carpenter.	May 16.	June 27.	Cured.	
11	M.		Seaman.	April 7.	April 8.	Died.	Simple fract. Clot in left occip. fossa; cerebellum and post'r lobe of cere- brum compressed. Ef- fusion over right anter. lobe of cerebrum, and laceration of brain at this point. Fract. from left of med. line to foramen magnum.
12	M.		Seaman.	Oct. 7.	Dec. 24.	Cured.	
13	M.	37	Boatman.	April 6.	May 30.	Cured.	
14	M.	30	Segarmaker	June 4.	June 4.	Died.	Simple fract. of calvarium, extending into base.
15	M.	71	Plasterer.	July 23.	July 25.	Died.	Simple fract. of calvarium, extending into the base; extensive effusion of blood.
16	M.	40	Seaman.	Aug. 23.	Aug. 24.	Died.	
17	M.	34	Laborer.	Sept. 30.	Sept. 30.	Died.	Fracture on left side with depression; extensive extravasation extending into base.
18	M.	15	Clerk.	Oct. 2.	Oct. 5.	Died.	Fracture extended into the base in various direc- tions.
19	M.	24	Porter.	Jan. 22.	Jan. 22.	Died.	Extensive fracture of base, with extravasation; frac- ture of ribs and lacera- of lung.
20	M.	17	Printer.	Aug. 16.	Aug. 16.	Died.	Fracture on *left* side, with- out depression; extra- vasation over the whole surface of brain.

Symptoms.
Symptoms of compression. Trephined. Fracture compound.
Symptoms of concussion. Hemorrhage from ear.
Comatose. Right pupil dilated.
Compound fracture into frontal sinus.
Compound. Symptoms of compression on 28th. Trephined.
Compound. Laceration of brain and dura mater; fracture on *left* side; left pupil dilated. Hernia cerebri.
Prostration. Simple fracture; hemorrhage from ear. Trephined.
Prostration. Compound fracture. Trephined; incision of dura mater.
Fracture compound.
No symptoms of compression. Compound fracture of vertex.
Insensible, and in a state of prostration. Reaction in a few hours; pupils contracted; *right* eyelid drooping; mouth slightly drawn to *left* side; movement of *right* limbs less free than that of the left.
Compound, with compound comminuted fracture of femur; restlessness and delirium; fell 80 feet, from masthead.
Compound, with depression; no bad symptoms; trephined immediately.
No fracture of skull detected. Fracture of leg and arm.
Simple fracture on *left* side, with depression; left pupil dilated, symptoms of compression. Trephined; extensive extravasation at seat of fracture.
Simple fracture. Hemorrhage from nose and ear; coma, with dilated pupils; stertorous breathing; convulsive twitching of muscles of face and limbs.
Compound, with laceration of brain; prostration from hemorrhage; bone elevated.
Cold and in collapse; died 15 minutes after admission.
Coma; hemorrhage from nose and mouth; vomiting before admission. Respiration stertorous, no paralysis; pulse frequent. Left eye closed from swelling of lids; *right* pupil contracted, and insensible to light.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
21	M.	15		Sept. 12.	Nov. 17.	Cured.	
22	M.	30	Musician.	Dec. 4.	Dec. 25.	Died.	Fract. on right side of calv. with slight effusion; fracture extended to base, involving the posterior clinoid processes.
23	M.	24	"	Jan. 10.	Jan. 10.	Died.	Clot 3½ inches in diameter and 1 inch thick in right temp. reg. lac. of mid. men. artery from a depression of the inner table, there being a mere fissure of the external, difficult to be detected.
24	M.	47	Fireman.	Feb. 1.	Feb. 1.	Died.	Fissures extended in various directions from the seat of operation, one running to foramen mag. Clot on right side over nearly half the surface of brain.
25	M.	17	Porter.	Feb. 13.	Feb. 16.	By request	
26	M.	28	Laborer.	Dec. 20.	Mar. 30.	Cured.	
27	M.	50	Lamplight'r	April 4.	April 7.	Died.	Fracture extended into base; right lateral ventricle filled with blood. Brain extensively lacerated.
28	M.	30	Laborer.	June 15.	June 16.	Died.	Fracture of base, with effusion of blood.
29	M.	24		June 1.	" 18.	Died.	Abscess extending nearly to the lateral ventricle of right side. Right hemisphere of cerebrum extensively decomposed and softened.

Symptoms.
Restless; pulse good, surface warm; talked incoherently. Compound fracture; brain oozing from wound; fracture on left side, with depression; trephined. Hernia cerebri.
Found by policeman in a state of insensibility; surface cold, pulse slow and small; pupils contracted, but acting feebly; mutters incoherently. *Right* arm partially paralysed. Became more conscious before death.
Insensible, surface cool, breathing stertorous, pupils dilated and fixed; found so five hours before admission; was knocked down with a club, afterwards rose, walked home, and complained of nausea; tumor on the right parietal protuberance. Died about 24 hours after accident.
Insensible; injured half an hour previously from a heavy "block" falling from the rigging upon head. Almost pulseless, surface cool, breathing "puffing," and slightly stertorous. Extensive laceration at vertex; no fracture detected. Pupils dilated and fixed. Trephining. Died immediately.
Insensible, pulse small and frequent; pupils dilated; fell through the hatchway of a ship; compound fracture of cranium, with slight depression.
Injury three days before admission; prostration; pulse slow and feeble; pupils dilated, but acting; partially conscious when aroused; lies in stupor; unable to articulate. Laceration of scalp over left eye, no fract. detected. Dec. 23. Better. A small wound over left ear was to day enlarged, and a fracture with some depression, detected. Jan. 5. In a state of profound stupor; cannot be aroused. Pupils dilated. Trephined. Five ounces of pus escaped from a wound of the dura mater.
Blow with a slung shot, on Mar. 27; picked up insensible, but soon recovered consciousness. Paralysis of *left* side. Apr. 6. Lies in a state of stupor, but can be aroused. Paralysis on left side still complete. Respiration calm and slow, pupils natural, pulse 64, weak. Elastic swelling over *right* temporal region. Trephined. Fracture with slight depression found; disk removed from temporal region.
Insensible. Respiration stertorous, pulse small; bleeding from ears and nose. Kicked by a horse.
Was struck on the head some days before admission. Insensible for a time. Rational now, and complains but little. Wound over right parietal protuberance and a fracture, but no depression detected. "Numbness" of left side, and slight paralysis. 5th. Worse. Enlarged wound, found depression; trephined. Dura mater found lacerated. 6th. Better. 8th. Some fungus cerebri. 9th. Spasmodic action of muscles of left limbs. 10th. Severe convulsions of left side. 11th. Hemiplegia of left side. Hernia increasing. Hemiplegia paroxysmal; during paroxysm, intellect undisturbed; pupils moderately dilated and fixed. Bled twice. 12th. Hernia excised and compression made. 13th. Better. Hemiplegia at longer intervals. 17th. No convulsions since last date. 18th. Last night became suddenly comatose, and died.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
30	M.		Cooper.	July 8.	July 10.	Died.	Corresponding with external wound was an immense coagulum; no lac. of dura mater. A mere fissure of right parietal, and squamous portion of temp. extending vertically from the petrous portion to near the sagittal suture.
31	M.	22	Laborer.	Aug. 7.	Aug. 16.	Died.	Separation of right occipi-temporal and temporo-parietal sutures; fract. extending to foramen mag. on right side. This continued to foramen lacerum post. of left side, thence through left petrous bone, then upward through squamous portion of temp. bone to temporo-parietal suture. Slight depression of vitreous table on right side. Sero-purulent fluid in lat. ventricles, under medulla oblong, substance of which somewhat softened.
32	M.	2½		Sept. 27.	Oct. 3.	Died.	No autopsy obtained.
33	F.	26		Oct. 9.	Oct. 10.	Died.	Small coagulum on right side of occiput, both external and internal to dura mater.
34	M.	16	Pedlar.	Nov. 29.	Nov. 29.	Died.	Clot of blood, external to dura mater over left petrous bone, and a fract. through the middle of this longitudinally.

	Symptoms.
	Wound over right parietal protub. No fract. detected; insensible; resp. stertorous; extremities cool, *right* pupil dilated and fixed; left natural and active. Slight indication of pain upon handling the wound. 10th. Last night, skin became suddenly hot; pulse rose to 120, full and strong. Respiration rapid; bled to 5 oz., pulse changed, wound closed up; died almost immediately.
	Fell from his cart; picked up insensible, but conscious when admitted; fissure of occiput felt through a wound of scalp, but no depression detected. 8th. Febrile excitement; headache and nausea. 9th. Pain in *left* ear, and sudden serous discharge from it, while patient was rising from bed. 13th. Delirous, pain in head, face flushed. 14th. Partially comatose, extremities cool; muscles of *left* side of face partially paralysed; unable to close left eyelid; semi-frontal headache. 15th. Talks incoherently, and tosses his arms about; strabismus divergens; last night became suddenly comatose; pupils contracted.
	Five days ago, fell, striking upon head; insensible 48 hours, and hemiplegia on *left* side. Large tumor on right side of head. Paralysis still continues; fluctuating tumor above *right* ear, and crepitus to be felt through it. Pupils natural; intellect good. Paralysis on left side of face, which had existed 36 hours. Incision made; portions of brain escaped through wound; extensive fracture, no depression. Removed loose portions of bone. 28th. Quiet and comfortable since operation. Oct. 1. In a semi-comatose state; answers questions when aroused; pupils natural. Oct. 2. Hernia cerebri; paralysis as before.
	Compound fracture of right parietal protuberance with depression. Coma, pulse 160, very weak; pupils contracted and fixed. Trephined.
	Blow on the left parietal region near vertex, from a barrel of flour falling upon it; tumefaction, but no fracture detected. Insensible. Pupils much dilated. Pulse frequent and scarcely perceptible; surface cold. Hemorrhage from left ear. In two hours rallied, became partially conscious, and drank some tea, but fell off and died in a few hours.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
35	F.	8		Mar. 3.	Mar. 5.	Died.	Right orbital plate fractured into several pieces, Right ante. lobe of cerebrum lacerated and softened; lac. of left post. lobe of cerebrum, slight effusion of blood in right lat. ventricle. Fracture extended backward through greater and lesser wings of sphenoid to petrous portion, and across it on either side.
36	M.	25	Laborer.	June 5.	June 5.	Died.	Fract. extended from petrous portion on left side, through base and right petrous portion to right parietal protub. Sella Turcica comminuted. Right mid. men. artery wounded. Left orbital plate fractured. Extensive clot on both sides, extending to base.
37	M.	35	Laborer.	June 15.	July 8.	Died.	No autopsy obtained.
38	M.	6		July 25.	Aug. 4.	By request	
39	F.	11		May 27.	Aug. 11.	Cured.	
40	M.	27	Stableman.	July 5.	Aug. 20.	Died.	About half of the middle and anterior portions of the left hemisphere softened and disorganized.
41	M.	24	Laborer.	Sep. 17.	Sep. 17.	Died.	Slight fissure of skull; large clot over right cerebral hemisphere.
42	M.	27		Sep. 24.	Sep. 24.	Died.	Occiput extensively fractured. Large clots.
43	M.	40	Laborer.	Sep. 25.	Sep. 26.	Died.	Fracture extending from calvarium, on right side, into the base, across it, and upon left side of calvarium. Extensive clots on right side and at base. Rupture of right middle lobe.

Symptoms.
Nearly pulseless and insensible; surface cold; hemorrhage from nose, ears and eyes; vomiting; also fractures of lower jaw, thigh and leg. Right side of head much swollen: right eye destroyed. Rallied in a few hours, became sensible, but not conscious; some paralysis of *left* arm. Mar. 3. Rather better. 4th. Profound coma.
Compound fracture on left side. Pulse full, 60; surface cool; pupils unaltered. Resp. stertorous; paralysis of *left* side. Comatose. Also fracture of inferior maxilla.
Compound fracture just anterior to left parietal protuberance; some depression. No head symptoms. 18th and 19th. Bled and cupped. 24th. Supp'n of wound. Sloughing and extensive supp'n about a fracture of the clavicle, which was also produced by the injury; hemorrhage from this. Died without head symptoms. Compound fracture of parietal bone.
Compound fracture of os frontis. No symptoms except dilation of pupils.
Kicked by a horse, five days before; was stunned; became sensible, and vomited; had convulsions during the next 48 hours—since which, has been delirious. July 6. Last night was so violent as to require to be tied in bed. Trephined. Fracture was compound of the os frontis, with depression; four ounces of effused blood escaped when the bone was raised. Laceration of dura mater. July 7. Has been quiet, sleeping most of the time; does not answer rationally. Pulse 86, quick and hard. V. S. ℥xviii. 9th. Convulsions last night; bled again. 11th. Doing well. 17th. Able to walk about the ward. Has had paralysis on *right* side, but none now. August 1st. Headache; pulse less frequent. 14th. Becoming comatose; fungus cerebri. 18th. Fungus excised.
Injury on the previous night. Symptoms of compression. No external mark of injury.
Symptoms of concussion; pulse frequent and irregular; extremities cool; delirious from drink. In a few hours symptoms of compression set in.
Had been injured just before admission. Insensible, restless, and somewhat violent; required to be held in bed; pulse nearly natural; pupils acting feebly; had been drinking; countenance and lips turgid. Œdema of scalp on both sides; next morning, symptoms of compression; stertorous respiration; frothing at the mouth; pupils dilated and inactive; pulse 76, feeble.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
44	M.	12		Aug. 27.	Oct. 20.	Cured.	
45	M.		Bookkeeper	Nov. 6.	Nov. 6.	Died.	Extensive comp'd fracture of calvarium extending into base; clinoid processes broken off.
46	M.	27	Laborer.	Nov. 8.	Nov. 12.	Died.	The fractures extended to base, but in the form of mere fissures. Clot in *right* temporal region; nearly whole of right cerebral hemisphere in a disorganized state, semi-fluid and chocolate coloured. Corpus callosum, on right side, slightly affected.
47	M.	11		Dec. 24.	Jan. 4.	Died.	Twelve hours after death, small abscess under dura mater, at seat of injury; abscesses and tubercles in the lungs.
48	M.	26	Carpenter.	Feb. 5.	Feb. 5.	Died.	No autopsy.
49	M.	40	Laborer.	Feb. 26.	Feb. 27.	Died.	Fracture of greater wing of sphenoid and squamous portion of temporal. Coagulum on right side.
50	M.	3		Mar. 14.	Mar. 14.	Died.	Fracture involved the occipital squamous portion of temp., and parietal of right side. Extensive clot beneath the dura mater.
51	F.	27		April 8.	April 12.	Died.	Fifteen hours after death, found a depression of external table of small extent, as if made by a sharp instrument; much more depression of internal table. Effusion of pus over the two posterior thirds of right hemisphere, and posterior third of left. Arachnitis.

Symptoms.
Musket-ball penetrated the occiput, and apparently lodged in the brain; finger could be introduced its whole length. Several fragments of bone removed. No bad symptoms.
Died within 15 minutes after admission. Two hours after accident. Fracture of thigh and clavicle.
Rock weighing 30lbs. fell on him two days before admission, producing fracture of calvarium on right side, with depression. No head symptoms; was able to walk without difficulty. Was insensible for some time after the injury; pupils natural. Dura mater and brain lacerated. Several pieces of bone removed. 10th. Comfortable, mind clear, skin natural, pulse 80, regular. 11th. 12 o'clock last night commenced vomiting, and soon after, the lacerated brain began to protrude; soon became unconscious and violent, requiring to be strapped to the bed. No convulsions; no paralysis. *Right* pupil dilated.
Stone weighing 14lbs. fell on head day before. Compound fracture of right side of calvarium with depression. Was insensible for 8 hours. Upon admission, no bad symptoms except slight frontal headache. Immediately trephined. 25th. Comfortable; some erysipelas about wound. 27th. Doing well. 31st. Worse; extensive erysipelas; sloughing of scalp.
Head crushed; *in articulo mortis.* Fracture of both arms and patella.
Fell 30 feet into a pit, a few hours before. No mark of injury about head. Unconscious since accident; restless and muttering; pupils natural, and fully acting; extremities cool; pulse not accelerated, full and strong. 27th. Restless and violent during night, requiring restraint.
Fell from a window upon pavement. Insensible, cold, pulse feeble. Respiration labored; pupils slightly contracted, but acting feebly; has vomited twice. Subsequently, symptoms of compression came on.
Beaten on the head a week ago. Partially comatose condition, lying quiet when not disturbed, and breathing in a labored manner; when addressed loudly, answers questions rationally. Pulse 116, feeble. Respiration 46. Skin rather warm; face flushed, mouth dry, teeth covered with sordes. *Right* pupil much dilated, and both act feebly. Partial paralysis of *left* arm. Scalp wound on either side of head. No fracture detected. 9th. Right pupil contracted, left dilated. Violent during the night; extensive chemosis of *right* eye. 11th. Comatose. Right iris has an oscillating motion.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
52	M.	35	Seaman.	Apl. 25.	Apl. 26.	Died.	16 hours; extensive extravasation through the scalp. Fracture of left side of calvarium, extending into base. The fract. of the calv. consisted in the separation, to the extent of a line, of the fronto-parietal suture; on the right side suture undistinguishable. Extensive clot on left side, and rupture of middle cerebral lobe.
53	M.	35	Laborer.	Apl. 1.	June 15.	Cured.	
54	M.	50	Laborer.	June 30.	June 30.	Died.	Several fractures through base; one through petrous bone; one through roof of orbit to external ang. process. A large coagulum beneath the dura mater.
55	M.	30	Baker.	July 21.	Aug. 11.	Died.	About a drachm of pus under the membranes to the right of longitudinal sinus. Brain and membranes elsewhere healthy.
56	M.	25	Seaman.	Aug. 15.	Aug. 16.	Died.	Whole base extensively comminuted, several fragments being loose and displaced. Clot under dura mater, on anterior lobe of left hemisphere. ℥vi. of coagulated blood at base.
57	M.	21	Seaman.	Aug. 16.	Aug. 16.	Died.	No autopsy.
58	M.	36	Clerk.	Aug. 24.	Aug. 27.	Died.	℥iv. of bloody serum at base. In centre of occipital fossa, a clot, and corresponding to this a fissure of the skull. Brain softened.
59	M.	33	Seaman.	Sept. 19.	Sep. 20.	Died.	Fracture on left side of calvarium, extending backward through occipital bone to base. Extensive clot on left side, external to dura mater; blood over whole left hemisphere.

	Symptoms.
	Fell 50 feet just before. Was in a state of stupor, but spoke once or twice after admission; soon relapsed into complete insensibility; afterward became violent and resisting, requiring restraint; pupils much contracted, and immovable. No fracture detected. 26th. Comatose and quiet; opens his eyes when addressed loudly. No stertor; pupils same.
	Compound fracture of os frontis. No head symptoms; also of patella, radius and thigh. Insensible; lived five hours.
	Was intoxicated; wound of scalp on left side; considerable hemorrhage; fracture of parietal bone; slight depression; sensible, though rather unmanageable. Pupils rather dilated, and sluggish; surface warm. Aug. 4th. Severe frontal headache; chills. 6th. Chills; irritability of stomach. 7th. Same. Trephined; upon raising the bone, pus, to the amount of ℥ss. gushed out; temporary relief. 10th. Delirious; spasms of facial muscles; very violent; dura mater looks sloughy.
	Symptoms of concussion. Extremities cold; vomiting, jactitation; pupils a little dilated; pulse small and slow; patient soon became noisy and violent, requiring several men to confine him to bed; so continued until an hour before death.
	Symptoms same as the preceding case; wound of scalp running along coronal suture five inches; extensive fracture running in the same direction, with depression. Trephined; a large clot removed. 18th. Drowsy and stupid; pupils contracted. 12M. Symptoms of compression came on suddenly; pupils dilated. Respiration stertorous; pulse full and jerky. V. S. ℥xviii.
	Wound over occiput; no fracture detected. No symptoms of fracture. Delirium tremens during the day, sensible and about the house; suffering at night from symptoms of delirium tremens.
	Half an hour before, fell into hold of a ship. Is recovering from effects of concussion. Pupils act feebly; no consciousness; pulse rather frequent, skin pleasant, countenance pale. Some hours after became restless, then comatose. Sudden symptoms of compression; pupils dilated; respiration stertorous; pulse slow.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
60	M.	50	Laborer.	Oct. 11.	Oct. 12.	Died.	Fract. extended downward on right side to meatus externus, along junction of petrous with sphenoid, and across basilar process. Whole left hemisphere covered with blood, internal to dura mater, which proceeded from a lac. of mid. lobe of left side at base.
61	M.	34	Seaman.	Oct. 10.	Oct. 18.	Died.	Fracture on right side of vertex, semicircular; radius of half inch, no fissures; depression of a line a separate fract. at base on either side of foramen magnum. On both sides, it extended beyond the condyloid processes.
62	M.	20	Seaman.	Oct. 27.	Oct. 28.	Died.	Moderate extravasation beneath the scalp on right side, none on left. Clot an inch in thickness filled up mid. cerebral fossa, extended forward, somewhat over roof of orbit, ascending nearly to zygoma. No fracture of calvarium. On left side, at base, a fissure across base of petrous bone, crossing greater wing of sphenoid, and involving foramen spinosum.
63	M.	27	Lawyer.	Dec. 15.	Dec. 17.	Died.	One hour. Brain congested. Quantity of fluid blood in right mid. central fossa, internal to dura mater. Clot in same situation external to this membrane. Separation of lambdoidal suture on right side. Œdema of glottis.
64	M.	21	Seaman.	Dec. 27.	Dec. 29.	Died.	Small clot under arachnoid. Fract. extended forward through cribriform plate, then backward through sella turcica; another extended downward through squamous portion to foramen magnum.

Symptoms.
36 hours before, fell from a height of four steps backward upon pavement. Insensible; respiration frequent and labored; pulse 150, full, mod. force; skin hot and dry; blood in right ear; wound of scalp three inches above right ear; fracture, with some depression. Trephined. Fracture very extensive; large clot extending toward base; considerable hemorrhage from mid. men. artery. No improvement.
Fell just before from the yard-arm upon the deck. Insensible; extreme restlessness; pulse scarcely perceptible; pupils dilated; wound of scalp at sinciput, transverse, four inches in length, crossing median line; fracture extending in same direction; depression moderate. 11th. Restlessness has subsided; reaction established; temperature natural; pulse pretty good; in a state of stupor, with occasional distension of cheeks in expiration. 12. Some consciousness; pupils natural; in a comatose state, but can be aroused; pulse 108, weak; passes his water and feces in bed. 17. Past two days delirious, slept none; talks incoherently; pulse 154. Restless and violent, requiring restraint.
Was struck by barrel of flour upon the head, and knocked into the hold of vessel, 16 feet; picked up insensible, but furiously delirious; admitted in this condition. Surface natural; pulse 52, moderate force, pupils natural. When touched, screams violently, and struggles. Resists attempts to remove his clothes, though perfectly unconscious. When touched about the face, attempts to bite. Contusion of right temp. region, and a soft quaggy feel over right cheek, and above left ear. Died 15 hours after admission; for some hours previous, pulse was 120; restlessness and delirium continued.
Was struck on right side of head just before by a passing R. R. car; tore off ear and knocked him senseless to ground. Was conscious on admission. Somewhat intoxicated; general contusion of head, but no sign of fracture. 16th. No bad symptoms; walked a little to day. 17th. Died suddenly of suffocation.
Fell an hour before, from mast, 50 feet. Compound fracture of left parietal bone with a depression of a large fragment; comatose. Pulse fair, rather slow; pupils natural, temperature unaltered. Hemorrhage from left ear. 28th. Last night became restless and violent, requiring restraint; trephined. Fracture found to extend towards orbit; clot 3½ inches in diameter, and one inch thick. No improvement.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
65	M.	22	Laborer.	Mar. 8.	Mar. 24.	Died.	Anterior and middle lobes of right hemisphere almost wholly destroyed; the disorganization of the tissue has opened the lateral ventricle; whole right hemisphere covered with unhealthy pus; pus at base also. The fracture did not extend further than was observed before death.
66	M.			May 16.	May 17.	Died.	18 hours after death. Substance of hemisphere below fract. broken down into a chocolate colored mass to an inch in depth.
67	M.	36	Boatman.	Mar. 30.	April 2.	Died.	18 hours after death. Clot under dura mater first posterior to wound of membrane. Enormous clot over right hemisphere, external to membranes. Fract. extended from orbital plate of left side backward and to the right through cribriform plate, which was comminuted; then thro' ant. clinoid process and greater wing and petrous portion to occipital.
68	M.	17	Harness maker.	May 14.	May 27.	Cured.	
69	M.			July 25.	July 25.	Died.	12 hours after death. Separation of sagittal suture; two fractures from the posterior extremity of this, on opposite sides, to the base. Whole calv. much comminuted.
70	M.	14		July 27.	July 27.	Died.	A thin coagulum was diffused over the whole surface of the brain, particularly on the left side.

	Symptoms.
Struck a few hours before, with a shovel, while drunk;	was stunned by the blow, but recovered and walked to the Hospital. Upon admission, was conscious; pulse calm and natural; wound over right parietal bone, passing down two inches just anterior to the ear; the bone was cleft to the same extent, a narrow strip being driven deeply in at both extremities of cleft; fracture extended in form of fissure as far as could be traced. Trephined. Inner table fractured to a much greater extent than outer; membranes and brain lacerated; considerable hemorrhage during operation. March 9th. Pretty comfortable. 11th. Headache, febrile excitement, &c.; erysipelas of head and face; suppuration commencing. Intellect good. 12th. Restless and somewhat delirious last night; pulse 98. 14th. Hernia cerebri; partial *ptosis* of left eyelid; right angle of mouth slightly drawn up; unable to protrude the tongue. 17th. Paralysis of *left* arm; partial of *left* leg. 22d. Hernia sloughy; removed whole mass; tendency to coma; breathing slow and labored; pulse 76. Involuntary discharges from bladder and bowels. 23d. Marked symptoms of compression have shown themselves suddenly; stupor, stertorous breathing, pupils rather dilated. Hernia larger than when excised.
Struck with a hammer three or four hours before;	conscious, but unable to articulate distinctly, both pupils dilated; pulse 108, full and strong; compound fracture of left parietal bone, with considerable depression. Trephined. Laceration of brain and membranes; hemorrhage free. Condition improved by operation. Mar. 31st. Passed quiet night; no head symptoms; tongue turns to the right when protruded; left angle of mouth drawn down; twitching of muscles of right side; pulse 112, soft. April 1st. Comatose; can be partially roused; cannot articulate, though he attempts to do so. Hernia cerebri; purulent discharge.
Some hours before admission, was struck on head with a club;	wound over left brow; fracture with depression. Insensible; pulse full but intermittent; pupils dilated; respiration labored. Trephined; every appearance of clot under dura mater; divided it; no clot, semi-fluid blood poured out. No change in condition.
Insensible;	compound fracture of frontal bone, with some depression on *left* side. Pulse 100, full. Left angle of mouth drawn downward; pupils dilated; had vomited. 15. Better. 16. Erysipelas of scalp.
Fell from 3d story;	insensible; died seven hours after admission.
Fell from a shed, about 12 feet.	Insensible; stertorous respiration; dilatation of *left* pupil; contraction of right. Contusion over both parietal bones. Over the *left*, a depression felt. Slight paralysis of lower extremities; spasms of muscles of upper. Skin burning hot. Bled; no relief. Trephined. On left side, fracture extending from parietal lobe toward occipito-parietal suture; bone elevated, with some relief; heat of skin abated. Within three hours, heat returned; pulse rapid and feeble.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
71	M.	18		Aug. 10.	Aug. 10.	Died.	Fract. had comminuted the left orbital plate, extended backward, and to the right, across right lesser and greater wings of sphenoid to petrous portion. Cribriform plate driven down and brain had escaped through the nostril previous to death.
72	M.	18	Tailor.	Aug. 5.	Aug. 17.	Cured.	
73	M.	12		July 22.	Aug. 30.		
74	M.	30	Printer.	Sept. 1.	Sept. 1.	Died.	2 hours after death. Fracture extending from middle of right parietal bone downward and outward through squamous portion, clot in temp. region, containing about 3 ounces.
75	F.	12		Sept. 14.		Died.	10 hours after death. Separation of coronal suture through its whole extent, with small triangular fracture a little depressed, extending into right parietal bone. Also fract. of left parietal bone, and petrous portion of temp., with rupture of meningeal artery.
76	M.	15	Seaman.	Oct. 11.	Oct. 12.	Died.	12 hours. Fracture through right petrous portion, and a clot on *left* side of head, internal to dura mater.
77	M.	24		Oct. 11.	Oct. 19.	Died.	Comminuted fracture of right petrous portion, and suppuration in and about it.
78	M.	33	Seaman.	Oct. 23.	Oct. 28.	Died.	Found extensive fracture at base.
79	M.	21		Dec. 19.	Dec. 19.	Died.	Calvarium extensively comminuted.

Symptoms.
Fell three stories. Comatose. Pulse hard and quick. Respiration stertorous. Paralysis of upper and lower extremities, except slight motion of right arm. Compound fracture over parietal protuberance, with depression; laceration of brain, and escape of some of its substance; fracture evidently extends through the orbital plate.
Was struck with a club just before admission. Compound fracture of skull in situation of posterior and superior angle of left parietal bone, with marked depression of a piece of bone the size of a 25 cent piece. No head symptoms, nor did any occur during his stay in hospital.
Fell upon the floor while swinging. Wound of scalp three inches long, near vertex; also fracture of radius; no head symptoms. 29th. Extensive suppuration beneath scalp; openings made. August 2d. To-day, on passing probe into one of the openings, detected an extensive fracture of right parietal bone, with some depression.
Cold and nearly pulseless; stertorous breathing; dilated pupils. Fell from 3d story window just before admission. Wound over right parietal bone; no fracture detected.
Fell from deck of vessel into hold. Immediately bled by a doctor. Upon admission, was insensible, and almost pulseless; had vomited, and continued to do so. Depression felt on right side of head, over coronal suture.
Fell into hold of ship just before admission; insensible, cold extremities, pulse small and irregular; bleeding from right ear and nostrils; could, with difficulty, be roused to answer questions. Left pupil contracted.
Fell from a second story, just before admission, while drunk. Hemorrhage from right ear and nostrils. Insensible and restless; had vomited blood. Can be aroused to answer questions. 13th. Better; sero-sanguinolent discharge from ear. 17th. Has had rigors; sero-purulent discharge. Delirious.
Fell from second story window just before, while drunk; vomited freely; unconscious, restless and resisting.
Fell 20 feet just before admission. Compound fracture of skull at vertex; laceration of membranes, and protrusion of brain. Insensible; respiration stertorous; cold extremities; pupils dilated.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
80	M.	20	Carpenter.	Jan. 13.	Jan. 13.	Died.	22 hours. Found extensive fracture at base, involving left orbital plate, body of sphenoid and right petrous portion. Extensive extravasation at base, on both sides of dura mater.
81	M.	31		Feb. 16.	Feb. 18.	Died.	Five hours after death. Found active cerebritis and meningitis, deposits of pus and filrim under arachnoid, particularly at base; clot on right side of head; fracture of right orbital plate extending through greater wing of sphenoid and petrous portion of temporal.
82	M.	41	Mason.	Dec. 17.	Dec. 23.	Died.	
83	M.	43	Laborer.	Jan. 30.	Feb. 13.	Died.	Some hours after death. Considerable effusion of serum under dura mater. Arachnoid, at some points, inflamed. Anterior lobe of left hemisphere inflamed and softened.
84	M.	24	Ropemaker.	Apl. 4.	Apl. 4.	Died.	A small portion of calvarium driven in one quarter of an inch; fracture involves both sides of med. line near post. part of sagittal suture.
85	M.	30	Printer.	Apl. 14.	Apl. 14.	Died.	A mere fissure was found close to seat of operation. A layer of dark blood over surface of the left hemisphere, beneath membranes. Softening of mid. cerebral lobe of left side. Clot in substance of right *thalamus nervi optici*.
86	M.	24	Clerk.	May 31.	May 31.	Died.	Comminuted fracture of frontal bone, extending half across left parietal, with some depression. Both orbital plates and crista galli broken. Laceration of ant. lobes at base. Effusion of blood under membranes at post. part of brain, *opposite* seat of fracture.

Symptoms.
Short time before, fell from spire of a church, 50 feet. Surface cool, pupils dilated. Hemorrhage from nose and from right ear; pulse weak and frequent; moaning; when spoken to loudly, attempts to answer. Fracture of both arms.
Was beaten over the head two days before admission. Insensible and delirious; pulse small and frequent; extremities cool; pupils somewhat contracted; some hemorrhage from right ear and nose; ecchymosis of right eyelids. 17th. Very restless last night, shouting and talking incoherently; retention of urine; strabismus of *left* eye. 18th. Continued as before, until early this morning, when a sudden change occurred; pulse became frequent and feeble, skin burning hot, especially the head, complete coma, almost complete paralysis, fixed pupils, &c.
Fracture of os frontis at frontal sinus, with other extensive fractures and injuries.
Fell into the hold of vessel; compound fracture of skull, with depression just above right ear. Fracture and dislocation of os femoris. No head symptoms; patient able to relate the accident. Pulse 96, soft; respiration natural. Trephined. Feb. 2d. Better; has had febrile excitement and been bled. 4th. Delirious, and requires restraint; pulse feeble, takes stimulants. Patient is restless, pulling at the bed clothes, and scratching himself violently; semi-comatose and muttering, but when aroused, answers questions. 12th. Diarrhœa for last three days.
Mast fell upon him just before. Had vomited. Is in a state of collapse; insensible; respiration slow; pulse 48. Compound fracture. Died within ten minutes after admission.
Just before, was struck on the head with a heavy weapon. Wound of scalp over anterior and inferior angle of right parietal bone; no fracture detected. Insensible; pulse 120; temperature natural. Respiration stertorous. Pupils contracted. Symptoms of compression became urgent; pulse fell to 76. Trephined. Some improvement.
Two hours before, fell from a 3d story window, while drunk. Compound fracture of frontal bone on right side, also fracture of leg and arm. Vomiting and raving; pulseless at wrist; jactitation; talking incoherently.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
87	M.	18		Aug. 24.	Aug. 24.	Died.	3 hours after death. Both orbital plates much comminuted. Fracture extended in various directions backward into the base, comminuting the right petrous portion. Sella turcica fractured. Inferior surface of both anterior lobes reduced to a pulpy mass.
88	M.	29	Laborer.	May 29.	May 30.	Died.	Five hours. Portion of brain corresponding to fracture lacerated and disorganized. Ant. and inferior part of *right* hemisphere disorganized from effect of *contre coup*. A fissure extended from the fracture to the left side of foramen magnum. Occipital bone on left side quite movable. Long'l and lat. sinuses lac'd.
89	M.	20	Seaman.	Jan. 14.	Jan. 15.	Died.	Fracture of occiput with depression; clot external to dura mater in right posterior cerebral fossa, weighing 6 ounces; fracture extended through petrous bone on right side through meatus aud. int. and to foramen magnum.
90	M.	18	Seaman.	Apl. 28.	June 9.	Cured.	
91	M.	18		Sep. 10.	Sep. 15.	Died.	17 hours. Fracture extended from right parietal bone backward, and to left, as far as posterior occipital fossa. Clot over right hemisphere; another farther back and over left hemisphere.
92	M.	50		Jan. 25.	Jan. 26.	Died.	Ball was found to have passed entirely across the brain, and to have lodged against the dura mater on opposite side.
93	M.	37	Boatman.	Apl. 8.	May 30.	Cured.	

	Symptoms.
	Fell 50 feet. Fracture of left parietal bone, with depression. Insensible; pulse feeble. Respiration stertorous and labored. Died in an hour.
	Heavy stone fell on head, from a height of 100 feet; vomited at the time. On admission, insensible; comatose, with stertorous respiration; dilated pupils; partial paralysis of *right* side; great jactitation. Temperature natural; pulse quick and small. Required restraint. Compound fracture of occiput on left side, with depression. Trephined. Less stertor and jactitation after operation. Right pupil contracted, left dilated.
	Fell from 4th story to cellar, 2 hours before. Insensible; pulse small and feeble; pupils contracted; vomiting. Can be aroused a moment by addressing him loudly. Bleeding from right ear. Contusion on right side of occiput. Reaction established by stimulants. Became restless. 15th. Comatose; pulse full and jerky; skin hot and profusely perspiring. Respiration stertorous.
	Six weeks ago, block fell from rigging, upon his head, producing fracture of the skull, with depression, of a piece the size of the palm of the hand, at the left and posterior region of the head. Ringing in the ears; sometimes pain in head; loss of memory to some extent; weakness of legs.
	A few hours before, a bar of iron fell on head; compound fracture of right parietal bone; ecchymosis of conjunctiva oculi of left eye; vomited before admission; insensible; surface rather cool; pulse 110; restless, with continued vomiting; requires restraint. 11th. Has been roused so as to give his name. Left pupil contracted. 12th. Still very restless, requiring restraint; is noisy; can be roused at times to answer questions; pulse 78, and strong. Bled. 13th. Pulse 120, small and weak; is more quiet; pupils dilated; takes nourishment. 14th. Still delirious at times, and noisy. Motions of right side of body more free than those of left.
	Four hours before, shot himself with a pistol. The ball passed into the brain at anterior and inferior angle of left parietal bone; profuse hemorrhage from middle meningeal artery; partially sensible; stertor, with blowing expiration; pupils slightly dilated; pulse 120, small and frequent; extremities cold; slight convulsions. Does not move lower extremities.
	Compound fracture of left parietal bone; no head symptoms. Just before admission, was struck upon the head by a heavy "block." Trephined, and the depressed bone elevated.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
94	M.	30	Cigar maker	June 4.	June 4.	Died.	General effusion of blood over the brain; clots at the base. Two fractures of base on right side, from orbital plate to foramen lacerum anterior, and from foramen magnum outward, two inches.
95	M.	71	Plasterer.	July 23.	July 25.	Died.	Depression of a triangular portion of os frontis; extensive coagulum at seat of fracture. Anterior lobe lacerated by spicular of inner table; left orbital plate reduced to fragments; thence the fracture extended through ethmoid, and through right orbital plate.
96	M.	37	Baker.	July 31.	Aug. 3.	Died.	Layer of coagulum one-quarter of an inch thick, covering whole right hemisphere; that portion of left hemisphere exposed by the trephined decomposed.
97	M.	40	Seaman.	Aug. 23.	Aug. 24.	Died.	Fracture extended from the left side forward to superciliary ridge, then across the right orbital plate. A large cavity was found in the left hemisphere of the cerebrum, communicating with the lateral ventricle.
98	M.	30	Seaman.	Jan. 5.	Jan. 5.	Died.	Contusion over left eye. Laceration of middle lobe of cerebrum; large coagulum.
99	M.	22	Boatman.	Aug. 3.	Sep. 12.	Cured.	
100	M.		Boatman.	Sept. 19.	Nov. 1.	Cured.	

	Symptoms.
Two hours before admission, fell from a wagon.	Insensible; continually scratches the genitals. No fracture of skull detected. Has fracture of fore-arm and leg.
An hour before, fell a distance of 7 feet.	Wound over left frontal bone; no fracture detected. Fracture of scapula. Bleeding from mouth and nose. Insensible and restless. 25th. Partially comatose; mouth drawn to *right* side. Respiration hurried; pulse 130, strong. Died comatose.
Three hours before admission, struck by a hatchet.	Insensible; respiration labored; pulse accelerated; right pupil dilated, left contracted. Wound on left side of head. Symptoms of compression soon set in. Trephined. Disk of bone removed; dura mater punctured. Aug. 1st. Insensible; paralysis on left side; paralysis of right eye-lids; pupils dilated.
An hour and a half before, was struck on the head with a carpenter's square; got up unassisted, but soon fell down unconscious.	Symptoms of compression. Left pupil dilated, right contracted; pulse 46, irregular. Skin cool. Compound fracture, with depression on left side of the head. Trephined. Effusion of blood; laceration of brain and membranes. During operation, pulse improved; pupils became alike in size; warmth returned to the surface; afterward a profuse perspiration broke out and continued through the night. 24th. Spasmodic twitching of left fore-arm; scratches himself with *left* hand.
Eight days ago, fell into the hold of a ship; has been insensible since, with paralysis of *left* side. Died soon after admission.	
Day before was struck on head by a heavy block; insensible for fifteen minutes; rational when admitted, but had no recollection of what had happened.	Wound of scalp on upper part of occiput, right of medium line. 7th. Has convulsions of the face and *left* side of the body; frothing at the mouth; rational during the intervals; pupils rather dilated; no headache; pulse 80 and soft; surface warm; partial paralysis of *left* side; upon dilating wound, found extensive fracture, with depression; 16 fragments, some driven in half an inch, removed; removed a large clot. 8th. Restless, had two convulsions. Limbs of both sides convulsed. Erysipelas.
A few hours before, a "block" fell 50 feet, and struck upon the head, above the right temple; was insensible for a time; vomited frequently; was bled. When admitted could walk; a puffy tumor over right temple; pulse weak and fluttering; extremities cold.	After reaction was established, trephined; found fracture with depression. Erysipelas.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
101	M.	34	Seaman.	April 13.	April 14.	Died.	Coronal suture separated through its whole extent; fracture through the base, of petrous portions of both sides; sella turcica. Clinoid processes broken off; thick clot over both anterior lobes; clot and laceration of brain at base on left side.
102	M.	60	Seaman.	Nov. 20.	Nov. 21.	Died.	Fracture without depression of left orbital plate, extending to middle of lesser wing of sphenoid. Coagulum occupying left fronto-parietal region under dura mater. Inferior portion of right anterior lobe lacerated, and reduced to a dark pulpy mass.
103	M.	17	Clerk.	Aug. 5.	Aug. 6.	Died.	Fracture extended into base. Clots at base, and two or three apoplectic clots in the substance of the brain.
104	F.	29		Feb. 9.	Feb. 11.	Died.	6 hours after death. Fracture extending from within a quarter of an inch from the perforation downward and forward to base, through squamous portion. Small coagulum in temporal region beneath dura mater. On *right* side a large clot, covering whole of middle lobe and part of the posterior.
105	F.	13		May 24.	July 28.	Cured.	
106	M.	32	Laborer.	Jan. 1.	Mar. 3.	Cured.	
107	M.	21	Farmer.	May 1.	May 2.	Died.	21 hours. Fracture of upper and posterior part of right parietal bone, with depression; arachnitis.
108	M.	21	Boatman.	Dec. 6.	Dec. 26.	Cured.	

Symptoms.
Fell into the hold a distance of 10 feet, striking upon the head. Insensible; pulse small and frequent; pupils dilated and immovable; bleeding from the nose; incoherent muttering and restlessness. Contusion on the left side of the head. Trephined. Small clot external to dura mater, incision of dura mater; no clot. After operation, breathing became more stertorous; head and trunk hot and bathed in perspiration.
Two hours before fell 15 feet, striking, as was said, upon the buttocks; hemorrhage from nose, and vomiting; on admission, insensible; pupils contracted; extremities cold; pulse feeble and irregular. Respiration stertorous and irregular. Mutters incoherently, and when addressed, attempts to answer; has probably been drinking. No mark of severe injury about the buttocks. Before death, vomited blood.
Fell from 3d story just before admission. Compound fracture of left parietal bone, with depression. Comatose. Respiration stertorous, surface cold, pulse feeble and irregular; occasional convulsions. Trephined.
Just before admission, was knocked down by a horse and cart. Insensible; surface cool, pulse small. Contusion of scalp over left parietal protuberance; hemorrhage from left nostril; fracture of several ribs. Five hours after admission reaction came on; respiration more labored; right pupil dilated and immovable. Trephined at seat of injury. No fracture or extravasation found; incision of dura mater. 10th. As before. Left eye affected with strabismus; pulse 108, irregular.
Just before, fell from a window. Compound fracture of os frontis, with depression; laceration of brain and membranes. Trephined.
Compound fracture of frontal bone on left side, just above orbit, with depression, affecting only the frontal sinus. No head symptoms.
Six days ago, was beaten over the head; experienced but little inconvenience the first two days. Is now insensible, and has convulsions; skin hot, pulse moderately full. Compound fracture of parietal bone.
Two hours before fell 20 feet into hold of vessel, causing compound fracture of the right side of head, over the occipito-parietal suture. Remained insensible for half an hour; was sensible when admitted; vomited occasionally; pulse slightly accelerated and hard; bled.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
109	M.	29	Laborer.	May 8.	May 9.	Died.	Fracture commencing just posterior to coronal suture, right of median line extending to the suture, which was separated on left of med. line through its whole extent. Clot in left middle cerebral fossa. ℥ iij. of fluid blood beneath dura mater. Left middle lobe softened; fracture extended to base on left side, fracturing posterior clinoid processes, lesser wings, &c.
110	M.	30	Fireman.	Oct. 1.	Oct. 7.	Died.	Clot on the right posterior cerebral lobe. Anterior portion of left middle cerebral fossa filled with a coagulum, which extended forward so as to cover the roof of the orbit. Fracture crossing the left orbital plate; one crossing right greater wing of sphenoid; other extensive fractures
111	M.	30	Carpenter.	Oct. 29.	Nov. 1.	Died.	Great distension of ventricles with serum; nothing further ascertained.
112	M.	35	Mason.	Nov. 20.	Nov. 20.	Died.	No autopsy obtained.
113	M.	18	Laborer.	July 25.	Jan. 10.	Cured.	
114	M.		Jeweller.	Apl. 2.	Apl. 2.	Died.	6 hours after death. Clot covering whole of left hemisphere. Fracture on the right side, commencing in the parietal bone, extending through the squamous portion, through base to foramen ovalo.
115	M.	24		June 16.	June 16.	Died.	
116	M.	48	Painter.	June 11.	June 11.	Died.	2 hours after. Both orbital plates comminuted; fractures of sphenoid, ethmoid, and petrous portions of right temporal bone.

	Symptoms.
	Just before was struck on head with an iron ladle. Insensible; pulse 56, small and feeble. Left pupil dilated, right contracted. Wound of vertex, just to right of median line, no fracture detected; vomiting of blood.
	Just before admission, fell 30 feet; insensible; pupils contracted, right rather larger than left; extremities cool; pulse weak and irregular; respiration stertorous; abrasion and tumefaction of scalp over right temporal region. 3d. Some improvement; takes drink. 7th. Pulse more frequent; stupor more profound; skin hot and dry.
	Fell 40 feet from a scaffolding; was insensible for a short time, but rational when admitted. Compound fracture of left side of occiput. 30th. Hiccough; no head symptoms. Nov. 1st. Delirious last night, and very restless.
	Five hours before, fell 30 feet. Fracture of left parietal bone, with some depression. Right pupil dilated; pulse small; had lost a large quantity of blood; skin cool; breathing stertorous.
	Was injured 3 days ago. Has been comatose ever since. Pupils moderately dilated and acting. Right arm paralysed. Respiration stertorous. Contusion of scalp on left side; fracture, with depression. Trephined; large fragments removed. Extensive coagulum; dura mater slightly lacerated. 29th. Improved; is conscious, and takes nourishment. 12th. Doing well; can move the right arm, but cannot articulate. 17th. Has recovered his speech.
	Compound fracture, with depression of right parietal bone, from fall of masonry upon the head.
	Fell from a hatchway just before. Insensible; respiration stertorous. Strabismus of right eye; pupils active.
	Short time before, fell from a ladder; was entirely insensible; and died in 15 minutes.

No.	Sex.	Age.	Occupation.	Date of Admission.	Date of Discharge.	Result.	Post mortem Appearances.
117	M.	59	Laborer.	June 8.	June 13.	Died.	13 hours. Fracture through anterior portion of left temporal bone.
118	M.	39	"	Aug. 19.	Aug. 20.	Died.	Fracture extending from right orbit obliquely to right mastoid suture.
119	M.		"	Oct. 9.	Oct. 9.	Died.	Skull extensively fractured at base; large clot under dura mater on left hemisphere.
120	M.		"	Nov. 9.	Nov. 13.	Died.	Fracture involved the occipital, parietal and the orbital plate of frontal.
121	M.	26	"	Nov. 27.	Nov. 30.	Died.	Found fracture of the calvarium, apparently caused by a sharp point of rock, there being slight depression of external table, with much greater depression of internal; also laceration of intestines.
122	M.	30	Painter.	Dec. 2.	Dec. 8.	Died.	
123	M.	19	Carpenter.	Dec. 23.	Jan. 17.	Cured.	
124	M.	20		Feb. 14.	Feb. 14.	Died.	Fracture of temporal and occipital bones on left side. Rupture of left posterior lobe of cerebrum, and of right middle lobe. Coagulum on left side.
125	M.	34	Laborer.	Apl. 13.	June 16.	Cured.	
126	M.	25	Seaman.	June 10.	June 15.	Died.	Clot under dura mater on left side; left anterior lobe partially disorganized; fracture. Commenced near left occipital mastoid suture, extended through occipital bone and petrous portion on the opposite side.
127	M.	24	Book keeper	May 9.	May 15.	Died.	No autopsy obtained.
128	M.	26	Boatman.	May 2.	May 3.	Died.	Fracture of os frontis and parietal bone on left side. Effusion of blood beneath dura mater.

	Symptoms.
	Fell from a height. Partially insensible; urine and feces pass involuntarily. 10th. Violent delirium last night. 12th. Has pneumonia; lies in a state of torpor.
	A short time before admission, fell 40 feet. When admitted, surface cool, pupils dilated, respiration stertorous.
	Fell into the hold of a ship; left pupil dilated; pulse slow, respiration stertorous; depression felt just to left of occipital protuberance. Trephined without relief.
	Fell 30 feet; partially insensible; pulse feeble and frequent; pupils natural; compound fracture, with depression, the brain protruding through the wound.
	Two days before admission, received a blow on the head from a heavy mass of rock falling upon it. Has fracture of pelvis, dislocation of hip. No head symptoms; is able to give an account of the accident. No fracture suspected. Dislocation reduced under sulphuric ether.
	Just before admission, fell from a height of 40 feet, producing compound fracture of ribs, laceration of lung, and a compound fracture of the skull, with depression. No head symptoms occurred.
	Heavy weight fell on the head; was insensible for a time; but on admission, had no head symptoms. Compound fracture, with some depression on left side of the head. No bad symptoms supervened.
	Fell into the hold of a ship an hour before. Entire paralysis and insensibility; right pupil dilated; pulse slow and feeble; respiration interrupted and sighing. Hemorrhage from right ear.
	Three months ago, skull fractured by a fragment of rock falling upon it. Complains now of headache and vertigo; occasionally falls to the ground. There is a deep ulcer of scalp communicating with rough bone. 16th. Trephined. Removed a large depressed fragment of the inner table.
	Seven hours before, was struck on left side of occiput with a blunt instrument, causing a wound of scalp. Is prostrated; pupils moderately dilated; when roused, mutters incoherently. 3 hours after, pupils became much contracted. 10th. Pupils again dilated. Vomiting; pulse 90, intermittent. 15th. Delirious.
	Just before admission, fell from a second story to the ground, striking the head upon an iron safe. Is sensible. A depression is felt on the right side, a little below, and posterior to the parietal protuberance. Trephined; found laceration of dura mater. May 11th. Febrile excitement. 12th. Delirious, and occasionally stupid. 13th. Spasms of various parts of body, particularly the face.
	Fell into the hold of a vessel, striking upon the head. Collapse; pupils active; mind unimpaired; vomiting. Died suddenly.

Perhaps the reader, who has not had a large experience in fractures of the skull, will be astonished, upon a hasty examination of the results of the table, at the great mortality, 106 out of 128, and may recall to mind a number of such injuries, a majority of which recovered. But if he will examine more carefully into the *nature* and *effects* of the injury in the individual cases, he will perhaps be equally surprised at certain recoveries which did take place. The injuries are, indeed, almost all of an extreme character, admitting of but little hope of recovery, having been for the most part, occasioned by falls from a height upon the head, an incident, most likely of all to prove fatal, or by the fall of a heavy body from a height upon the head, producing not only extensive fracture of the skull, with depression, often extending into the base, but in many cases laceration of the membranes of the brain, and of the brain itself, and rendering recovery almost hopeless. But a brief abstract of the nature of the injury in each case, as far as our data will allow us to give it, may place the subject in its proper light, promising, that we have been guided by conjecture in no case, only stating as facts what was demonstrated fully by *ante* or *post mortem* examination of the patient. Thus, in many cases, where the patient recovered, where no autopsy could be obtained, we have suspected, upon good grounds, fracture not only of the calvarium, but base, but have included no such case in the table.

Of the 128 cases, the exact extent of the fracture was ascertained in 95. In 45 of these the fracture involved both calvarium and base.

In 31 it involved the calvarium alone.

And in 20 the base alone.

In 26, or 20-31 per cent., both the brain and its membranes were lacerated; and in 4, the membranes alone. Of these 30 cases, only 3 recovered. In 10 cases, there was *hernia cerebri*, only two of which recovered. In 19 cases, or nearly 15 per cent., the fracture of the skull was complicated with other fractures, most of them very serious, and many of them almost sufficient of themselves to produce a fatal result.

Fracture of the base of the skull.—In sixteen of the fractures involving the base of the skull alone, the manner of the accident is mentioned. In thirteen it occurred from a fall from a height upon the head. In two, from the fall of a heavy body from a height upon the head; and in one from being beaten over the head with a club. Almost all these fractures, it will be seen, occur from falls upon

the head, the base of the skull being thus forcibly impelled against the spinal column, and thus broken, the fracture being doubtless also due, in some measure, to *contre coup.*

Separation of the Sutures.—In *three* cases, there was separation of the sutures without any fracture. In *four*, separation of the sutures, accompanied by fracture. In all these cases, the anchylosis of the sutures, judging from the condition of those uninjured, was perfect. In *five* out of the seven cases, the injury was occasioned by a fall from a height, striking upon the head; in one from a blow by a passing rail-road car, and in one from a blow with a club. This is a rare form of fracture, and only occurs, according to the authorities, from a very severe injury.

Fracture of the internal table without injury of the external.—In no case was this precise condition of things observed; but in two instances there was a very near approach to it, there being a mere fissure of the external plate, with fracture, attended by considerable depression of the internal. In one of them, the specimen of which is preserved in the pathological cabinet of the hospital, the fissure of the external table was so very slight as to be undiscoverable upon a first examination of the calvarium after its removal.

In two cases there was fracture of the calvarium by *contre coup.*

Condition of the pupils.—In all the cases, twelve in number, where the extravasation or depression was confined to one side, and the pupils affected differently, the *dilatation* was on the *same side* with the cause of compression. In none on the opposite side. But, in many cases, where this cause was situated exclusively on one side, no particular difference was noticed in the condition of the pupils, they being entirely unaffected, or affected alike. In *twelve* cases, in which the symptoms of *compression* were well marked, the patients not being in immediate danger of death, the pupils were *dilated* in *ten* (10,) contracted in *two* (2.)

Paralysis.—In *eleven* cases in which there was hemiplegia, whether partial or total, rarely the latter, and where the injury was mostly confined to one side or the other, it was found to affect the opposite side in ten (10,) the same side in one.

Trephining.—In forty-five cases in which this operation was resorted to, not distinguishing between the application of the trephine proper and of the various instruments appertaining to a trephining case, *eleven*, or about one-fourth, recovered.

The operation was performed *prophylactically* in ten (10,) of

which three were cured; *therapeutically* in thirty-two (32,) of which eight were cured. In three of the latter, the operation was secondary, of which two recovered. In seven of the cases trephined, the fracture was simple. In five cases, incision of the *dura mater* was practised, of which none recovered.

In no case did death follow the receipt of the injury until after the lapse of some hours, even in the most desperate cases; nor does it appear to be possible for an ordinary blow upon the head, producing fracture of the skull, to cause immediate death. The nearest approach to it I ever saw, was just previous to the termination of my term of service in May last; I was called into the yard to see a man in a carriage, who, it was said, had just fallen from the rigging of a ship to the deck, striking upon his head; this was the history obtained from his two shipmates who brought him to the hospital. Upon examination, I found the case hopeless; the man was perfectly dead, and had given no signs of life after the accident; he was not removed from the carriage. I could detect no fracture of the skull, and none of the neck, and yet either might have existed; probably a half hour or hour elapsed between the receipt of the injury and his arrival at the hospital. In a recent criminal trial of great interest, it will be recollected that, at one stage of the proceedings, it was much discussed whether a blow upon the head with an ordinary weapon capable of inflicting death, could produce this result instantaneously; many eminent surgeons were examined, and the general impression was, that the thing was exceedingly improbable if not impossible, and the question was thus decided.

ART. IV.—*Physiology of Subjectivity. A thesis submitted to the Medico-Chirurgical College of Philadelphia.* By BENNET DOWLER, M. D., of New-Orleans.

Perception, or the being aware of a thing, is a sensational intuition, or conscious state, and when not originating in the purely subjective or mental nature itself, is sensuous, having its origin in impressions and changes from without, that is, from the objective; but whether its source be purely subjective (internal) or objective, indwelling or transmitted, it can have no existence independently of consciousness. It may exist without, objectively; but, it is in its fundamental essence,

nothing but a subjective condition.* The distinction made between perception and sensation, by most psychologists and physiologists, is groundless. Sensation is not an entity, or a quality that can exist without perception; its essence consists in being felt or perceived; when not felt it is not.

The tendency of modern science to exalt the sensuous,† and to depress the objective sources of knowledge, is great, increasing, and ought to be resisted. Its fundamental axiom, that there can be nothing in the intellect but that which first passed through the senses, is an assumption, not to say an error. The understanding, and all the primary faculties, are innate, and never passed through the senses. The subjective is not created, but simply developed by the means or occasion of the objective. The former is the seed, the latter the fertilizing shower. The one existed anterior to the other. The former exists for itself, and is not a mere contingency resulting from the operation of the sensuous, or empirical phenomena.

The subjective, like a towering monument, veiled at first in almost total darkness, receives on its summit the first beams of the morning, until by degrees the whole structure is fully revealed, not created, in all its proportions.

The objective requires for its development, a long apprenticeship in the sensuous school. But when thus schooled, it is, in itself, able to study and deduce truths, wholly derived from its own proper nature, from its own operations—truths that never had a sensuous origin—truths that rise above the experimental philosophy—truths that really seem in contrast, if not in contradiction to experience, that is to say, necessary truths —truths that derived their validity from pure understanding, from transcendental and *à priori* intuitions; as the infinity of space and duration, two straight lines having crossed each other cannot meet again, nor enclose a space, not to name numerous similar examples.

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* The subjective designates whatever constitutes Self or the **Me**, the objective, the **Not Me**.

† Sensuous is not here used to imply sensation, or felt relation in any form, but to designate that school or method which derives all knowledge from objective nature by means of sensational transmission.

Even sensation is not sensuous or objective in its own proper nature. It is excited, but not caused, by the objective; the latter is the occasion, not the sensation itself.

Sensation, like matter, mind, space, duration, cause, thought, will and the like, is undefinable, inexplicable, and incapable of being proved; because, being of all truths the most self-evident, there remains no other evidence so clear as that inherent in itself. Consciousness cannot appeal to another higher and more enlightened faculty whereby to determine its own validity. It is its own first, middle, last, law and judge.

Although sensation cannot be defined logically, yet is readily comprehended by its own light or consciousness. If an individual could be found who had never felt a sensation, it would probably be impossible to convey to his mind any conception concerning it at all. One of the most remarkable facts in the whole circle of science, is that which consists in making the subjective objective to itself, the mind itself being the object of notice and research by the mind, subject and object in unity, the centre in which all the lines of knowledge meet. These views belong, however, to speculative science, rather than to physiology.

The question still remains, what is the physiological history of sensation? It is conceived that a short description, with fundamental illustrations, will make the whole matter more or less intelligible, without resorting to the prevailing hypotheses of the day.

Sensation is that conscious or felt relation which obtains between the subjective and objective elements of nature: this felt relation requires, according to circumstances, sundry essential conditions: this felt relation is self-evident, and is not cognized by means of an etermediate entity or attribute called an idea, or a transmitted impression; in a word, this relation is based on *immediacy*, not on representationalism. When I hear the report of a cannon, I do not hear the idea, or a transmitted impression of the report, but the report itself; the felt relation between the cannon and the Me, is hearing. I smell a rose, not the impression of a rose. I taste an orange, not the impression of an orange. I see a man crossing the

street, not a man crossing my sensorium; I see him there, not an intermediate entity in my mind, called a transmitted impression of a man.

There is no evidence whatever to show that the subjective and objective require contact by means of an intermediate entity, idea or impression, other than the primary impression, in order to be sensationalized.

The immediacy of sensation is as self-evident as the reality of sensation; whereas, the present systems of physiology assign the whole process of sensational cognition to representation, intermediary causes, wholly fictitious, called, not ideas, as Aristotle called them, but transmitted impressions.

The present system of physiology, (independently of the reflex system,) has opened a road from the subjective to the objective, or rather from the latter to the former, not by means of Aristotle's refined films, phantasms or ideas, but by means of two sets of nerves, and two sets of impressions, which are not only entities, but material ones. It is not sufficient that the sensiferous nerve shall receive an impression, but there must be another material impression, which travels along a material route, the sensiferous nerve, to a central, material sensorium, on which the final impression is made. That an impression can make a second impression without its seal, without being seen, too, on the passage, or after its arrival, and without leaving any visible mark, is wholly incomprehensible. This theory assumes that the sensiferous nerves have no sensibility whatever, being mere conductors of impressions. These transmitted impressions cannot be metaphors, nor yet immaterial entities, since there is no known analogy, of the remotest kind, in all nature, showing that metaphors or immaterial impressions travel along material roads, whether constructed of soft cords or hard iron. No one can appeal to consciousness as evidence that there is a particular spot in the brain which is the exclusive seat of sensation; no one is conscious of travelling impressions, while every one has the evidence of intuition that impressions are felt at the part impressed, with rare exceptions.

All candid anatomists must admit that the motiferous and sensiferous nerves can no where be actually distinguished

from each other by any structural differences. They are, for any thing that is known to the contrary, identical, one and the same, indivisible and inseparable, with the exception of a single assumed difference, viz., the double roots of the nerves are supposed to indicate double functions—a theory which I have ascertained to be erroneous by vivisections performed about two or three months ago, (1851.) The irritation of either root produces motion, more in the anterior than in the posterior. This may be a normal endowment, though it is probably due to the traumatic lesion of muscles, bones, theca—not to name the concussion, and other injuries incidental to vivisection of the cord. A vivisection cannot be conclusive, if it introduces a new element or lesion incompatible with the function sought; the new element must not only be compatible with the function sought, but it must be applicable, and in some degree separable from the compound resultant. Thus, a blow on the occiput, the usual preliminary to the supposed separation of the cerebral from the spinal influence, is both a contradiction and a negation, because no one can appreciate its effect nor its duration. Sensation may be diminished, not destroyed, or may return in full force. In a decapitation, all the residual phenomena in the trunk must be independent of the brain.

Certain principles usually adopted in the interpretation of spinal physiology, are extremely unsatisfactory, not to say erroneous. For example, what warrant has the physiologist to conclude that the anterior roots are exclusively motiferous, because the animal moves when that root is irritated? On the supposition that this is really and exclusively the sensiferous root, what would be expected from irritating the same? By what other language than these very motions, could the speechless animal express pain? Who knows that these motions, so indicative of pain, are purely motiferous, and altogether painless? Both roots are sensiferous, as well as motiferous, for any thing yet known concerning their functions or pathological anatomy. Hence the double tracts, the sensiferous and motiferous, to and from a sensorial spot in the brain, how true so ever they may be, remain unproved.

The present system of representational physiology, exclu-

sive of the reflex system, expresses or implies four sets of impressions—two for the sensiferous, and two for the motiferous nerves. The impressions of the latter begin in the sensorial spot, travel along a special tract, and impress special motory organs. The reflex system has an entirely different set of impressions that do not go to, nor return from, the central sensorium in the encephalon, which impressions are said to be "physical in their nature, reflex in their action." Here we have at least six kinds of impressions, all claiming to be physical, all travelling along physical roads, and yet all unknown, all incomprehensible, except the first, the only true one, so far as the objective world is concerned with the subjective.

That the roots of the nerves are double, is an anatomical fact, which no more proves their functions to be different, than the double roots of a tooth prove a functional quality. Sir C. Bell utterly repudiated experiments, and relied solely on anatomy to prove this double function, which was the only thing he claimed as new and true. Mr. Alex. Walker had taken the same ground, anatomy, and had published the same doctrine of duality, years in advance of Bell. That the almost entire medical world should acquiesce in this enormous fraud, is a fact unparalleled in modern history. (Walpole defined the word History, by the word Lie!) But this anatomical test utterly fails. There is nothing in the mere structure of the motiferous root, at least nothing known, showing that it is adapted exclusively to motion; nothing in the other root, from which sensation can be inferred; nothing in the anatomy, favorable to the hypothesis. Pathological anatomy fails to sustain this distinction. In the vast catalogue of motiferous or convulsive diseases, lesions of the motor tracts, and of the anterior roots are not found, nor even named, in any work, and the same is true of the sensiferous diseases, as palsy, et cetera.

That the almost destructive operations incidental to the cutting of the anterior roots should produce palsy, is a thing not to be wondered at, inasmuch as the essential conditions of motion are destroyed, or at least altered. The section of a nerve, and the consequent loss of motion and sensation,

does not prove that motion is exclusively inherent in that tissue. Fainting will still more suddenly abolish motion and sensation; so will the complete arrestation of the circulation, by ligature. Anæsthetic agents suspend both of these functions almost as suddenly. The nerve, the blood and the like, furnish essential conditions, not the sole exclusive agents or causes of motion.

The peripheral nerves are not mere insensible conductors to an unknown central spot, but possess an inherent sensiferous function throughout their remotest expansions in the special organs of sense, as well in the more diffused sense of touch. This diffused sensorium is an intuitive conviction as clear as consciousness itself. The relation between the subjective and objective, in sensational cognition, is immediate and direct, not intermediate, indirect and representational. All felt relations, having an objective origin, proceed from one class of impressions, the primary, and are cognizable at the point of contact, and simultaneously by the whole mind or subjective. The theory invented by Prochaska, now called the reflex system—that invented by Mr. Walker, now attributed to Bell, together with exclusively motory, sensory, excitor and motor tracts, and their corresponding entities, which travel on these roads, and which are called impressions, "physical in their nature," are but hypotheses, unworthy of the advanced state of physiology in this enlightened age. Even the refined ideal system of Aristotle has no longer a place in metaphysical and psychological science.

By what moral code is an anatomist justifiable in stating mere opinions, as absolute anatomical facts? Let him expect charity for his opinions, none for his facts. Let him show the sensory and motory tracts; let him show the continuous, separate and distinct classes of efferent and afferent nerves joined to the encephalic sensorial centre; let him show two other separate and altogether different classes of nerves, the motors and excitors, which communicate with the spinal marrow, only being wholly independent of the brain, and mysteriously called the reflex system, "the true spinal system," "the true spinal marrow!" These terms are not ironical! They are not intended as a satire on a kind of anatomy which

no eye, no microscope can reach, and which the professor of anatomy never condescends to show to his anxious disciples, and which, perhaps, no honest man in Christendom would swear to as so many physical facts before a court of justice. "The true anatomy" of the nerves cannot differ from that of the muscles, arteries or veins, that is to say, they can be demonstrated.

During a long life, the gigantic mind of Reid was actively engaged in overturning the theory of Aristotle, who maintained that the mind or sensorium could cognize nothing but ideas or transmitted impressions, not things—but the intermediate images or films, representing things. Berkeley, Hume and others, were able, by means of this doctrine, to show that, as impressions alone, and not things, could be objects of knowledge, there was not a particle of evidence to show that a material world existed, etc.

This doctrine of representational knowledge, banished from the speculative and phsychological sciences, has found an asylum in physiology, under the name of transmitted impressions, of which there are at least five in number, with four roads, two reaching the sensorial throne, and two having their termini in the spinal cord, so that Aristotle himself would not recognise his original films. All these difficulties are avoided, by admitting the intuitive evidence of consciousness, namely, that the relations between the subjective, or the Me, and the objective, the Not Me called sensations or feelings are direct and immediate, as they seem to be without the intervention of any third entity, called an idea, or transmitted impression, which must first reach an unknown spot in the brain, before perception or sensational cognition can take place. The sensations referred to the eye, ear, tongue, nose or skin, have their seat in those organs, and not exclusively in a spot in the brain. To say that the special organs of sense, and the periphery of the body, are mere conductors, having no sensibility whatever, flatly contradicts universal experience. The true vocation of physiology, in this department of science, is to ascertain and fix the essential conditions and laws of sensation, without attempting to substitute representational fictions for intuitive principles.

The confidence with which several propositions have been advanced in this paper would be fully warranted, if time permitted the introduction of all the available evidence.

ART. V.—*Incontinence of Urine after the Operation of Lithotomy, successfully treated by Sulphuric acid.* By WM. S. HALSEY, M. D.

Wm. Wilcox, aged 45, the subject of the present case, had been troubled with the gravel for about 7 years. Latterly it began to give him great distress by the formation of deposits in the urethra and bladder, which, with an old, hardened, and close stricture, situated in the fore part of the urethra, leading from the external orifice, nearly to the fossa navicularis, caused so much obstruction to the passage of urine, that it led him to seek relief from a surgeon who removed from the spongy portion of the urethra, just behind the scrotum, a calculus about an inch in length, and half an inch in its largest diameter, and at the same time operated for phymosis, which, with the stricture, had been existing for a long time. So bad were these last affections, that it was not attempted to introduce a sound or catheter into the bladder, for the purpose of investigating further the case at the time. The patient expressed himself so much relieved by these operations, and as the surgeon who had operated left for Europe, he returned home without any more being then done. About six months after the symptoms of stone presenting themselves in an aggravated form, I was called to see him, when I found him suffering under the following affections: a very close stricture, which permitted the urine to flow only in drops, and which, with difficulty, allowed to pass a No. 1 catheter; a large vesical calculus, a fistula very small, the remains of the former operation of extraction, and more or less incontinence of urine. After dilating the stricture sufficiently to allow the passage of a No. 7 staff, chloroform was administered, and the single lateral operation of lithotomy performed to remove the stone, which proved not to be of very firm consistence. I managed to break it in three pieces, with the forceps, to facilitate its removal, which was difficult, on account of

its large size. The bladder I found much thickened and indurated. In six weeks from the time of the operation, the wound was entirely closed, and the patient recovered, with the exception of not being able to retrain his urine for any length of time. He was constantly obliged to wear cloths about the parts, and renew them frequently during the day, to keep himself anyway decent. Besides, he complained severely of the acute pain, caused by the passage of sandy particles, which were constantly forming, and passing off per urethra. After having suffered these annoyances for more than 4 months, he again applied to me for relief. Judging from the character of the stone which had been removed, and from his diathesis, which I had well satisfied myself was phosphatic, I prescribed as follows:

Acid Sulph. ℥j.
Aq. Distil. Oj.
M. Coch. parv. sum. ter in die.

After taking this a few days, the formation of gravel seemed entirely arrested, and all appearance of it gone, and to my astonishment and great delight, the incontinence began improving, and in 4 weeks had completely subsided. While pursuing this treatment, his urine became very acid; so much so that all the cloths that were kept about the penis for the sake of cleanliness, with which the urine came in contact, were in a short time destroyed, and that too, without causing, he says, the slightest pain. It may be observed here, that after the operation, the fistula entirely healed up, and the stricture so much relieved that he now passes his urine in a full stream.

The question arises here, what could have been the cause of the incontinence in this case, that it should have been so soon relieved by the administration of the sulphuric acid? Had it been simple division of the sphincter vesicæ, which must always be necessarily divided in lithotomy, the incontinence would not have remained so long after the healing of the wound. The peculiar form of the stone, which had the shape of a pear, having a long slim neck, and the locality which it was found occupying at the operation, led me to suppose, be-

fore giving the acid, it might have been caused by ulceration of the neck of the bladder, produced by the stone situated in this place. But the short time in which this difficulty was obviated, precludes that idea. Was there a small calculus lodged in the neck of the bladder, that prevented the closure of the sphincter, and which was dissolved by the acid? or was it caused by the want of tone of the bladder, which the acid, acting as a tonic upon the general system, brought into healthy action?

Newburgh, N. Y., Nov. 1851.

ART. VI.—*Traumatic Tetanus.* By DANIEL AYRES, M. D., Surgeon to the Brooklyn City Hospital.

There are few darker pages on the records of medical science, than the history of acute traumatic tetanus. To those who are acquainted with the disease, it is here unnecessary to dilate upon the history, theory, diagnosis and endless forms of treatment which have accumulated upon the hands of the profession. Those who are not familiar with these items, will find an admirably written and very complete article, by Dr. Symonds, in the 4th vol. *Cyclopædia of Practical Medicine.* It is the practical results, the availability of medical treatment, that we now propose to consider. If the natural history of any disease is so clearly developed as to warrant us in drawing a conclusion, it is in this, that traumatic tetanus, unopposed by medical treatment, and even with the most judicious treatment, generally terminates in death.

The only therapeutical indications drawn from post mortem examinations, are such appearances found in the nervous centres and their appendages, which we are accustomed to consider the results of congestion, or the early stages of inflammatory action during life; yet these are not sufficiently invariable to satisfy those who have enjoyed extensive observation, and may even be questioned, whether these appearances, if they always existed, were the disease itself, or only the result of a continued and excessive draught upon the functions of these organs. At all events, if we believe with Dr. Marshall Hall, that the results of treatment are

among the most essential means in forming or correcting our views of a morbid process, the results of venesection and depletion do not justify the conclusion that the essence of acute traumatic tetanus is inflammation of nervous structure. Again, that it is "a disease of relaxation and debility," first propounded and acted upon by Dr. Rush, in this country, has been extensively followed by his successors, and, so far as we can estimate the alleged recoveries under any form of treatment, the stimulating plan has appeared to merit the most success. But it must not be overlooked, that these results include many cases of chronic and idiopathic tetanus, which differ widely and notoriously from the acute traumatic variety, in their relative amenability to medication; and likewise, that it has failed too often in the latter class to acquire the confidence or character of a specific. Perhaps we can afford no better estimate of the entire want of confidence, not to say desperation, to which disappointment has led, than the alternative suggested by an eminent London surgeon, Mr. Morgan, than whom few have had more ample ground for deciding the value of different plans of treatment. He has proposed to arrest the train of morbid phenomena, by induction of temporary paralysis, through the agency of the "Woralli or chatic" poison, and continuing its effects for a sufficient period, in the mean time supporting life by artificial respiration until the remedy has exhausted its action, or neutralizing its effect by the administration of the "ticunas." Dr. Symonds, (*Op. Cit.*) without endorsing this dernier resort, yet says, "we agree with Mr. Morgan, that it is incumbent upon us to look for new remedies, since the old ones have all failed. Upon this ground," he continues, "we are disposed to suggest a trial of strychnia, not that we have become followers of Hahnemann, but that it is a simple and undeniable fact, that disorders are occasionally removed by remedies which have the power of producing similar affections. It is quite unnecessary to explain this fact by an arbitrary principle, that an artificial irritation excludes a spontaneous irritation of the same kind. A more rational ground for an expectation of benefit from homœopathic medicines may be found in the consideration that such agents prove by their occasional pro-

duction of symptoms like those of the disease to be treated, that they act on the part which is the seat of the disease, and consequently, that there is a probability that in their operation on that part (whether it be in a sufficient degree to produce a similar disease or not) they may effect a beneficial change. Oil of turpentine, for instance, having been known to produce a discharge of bloody urine, might be rationally administered in a case of spontaneous hæmaturia, not because it has a tendency to produce this disorder, but because that tendency shows it to have a specific action on the vessels from which the hemorrhage takes place. As to the dangers incurred in the experiment which we propose, we think it sufficient to say, with an old writer, '*Satius est aliquid nonnullâ fiducia, vel cum periculo facere, quam ademptâ, spe certo perire; et potentibus extremisque præsidiis pugnare quam nihil agere.*'"

A reference to these statements is no less a matter of justice than of pleasure, both on account of their philosophical character and their bearing upon the chemical observations which illustrate their applicability. Nux vomica and its preparations have, until recently, been almost exclusively confined to the treatment of paralysis. Its great power has conspired, with other circumstances, to limit its use and obscure its properties; but cautious experience has gradually developed its value in many functional diseases, and the satisfactory results obtained from it in the treatment of chorea, hysterical tetanus and some forms of infantile convulsions, were additional reasons for its trial in the present case.

Matthew Kane, aged 12 years, was admitted into the Brooklyn City Hospital on the evening of the 24th August, with unmistakable symptoms of tetanus; of which the following history was elicited from his mother, and subsequently confirmed by himself: about one month previous, whilst playing barefoot upon a pile of lumber, he received what afterwards proved to be a splinter of wood, between the second and third toes. He experienced considerable pain on the occurrence of the accident, and continued to limp up to the present time, but remained at his work as assistant in the glass house, and had numerous domestic applications made to the foot. Four days before admission, his mother found a

foreign substance in the wound, and removed two splinters of wood, each about three-fourths of an inch long. Two days after this he complained of stiffness about the back part of the head and neck, which gradually extended to the jaws. The disease is now fully formed; he lies constantly upon his back, the body inclined backwards; countenance anxious and sardonic; the jaws may be forced open about a quarter of an inch with great difficulty, and he swallows with considerable effort; complains bitterly of stabbing pains which shoot from the ensiform cartilage to the spine, are paroxysmal, and return at intervals of a few moments; they are increased in frequency upon the slightest exertion, or any disturbance in his vicinity, and then the whole body is thrown into violent spasms, which assumes the form of opisthotonos; he has some thirst, a soft pulse of 96, and skin freely perspiring; he was caused to inhale chloroform, which produced anæsthesia rapidly, and without an unpleasant effect; whilst in this state, a probe introduced into the wound at the dorsal comnissure of the second and third toes, passed obliquely through a sinus $1\frac{1}{2}$ inches towards the plantar surface of the foot; there was no discharge, and nothing foreign could be detected; a sharp-pointed bistourie was passed directly through the plantar surface, and divided the parts, which were dressed with lint dipt in spts. turpentine and covered with flax seed poultice; ordered chloroform to be administered during the night, according to the discretion of the house surgeon; also a large enema of strong soap suds, with Lac Fœtida, ℥j. and Ol. Turpentine, ℥ss., to be given immediately, and the whole spine kept constantly covered with cloths, saturated in the following embrocation:

℞ Ext. Belladon.
Ext. Stramonii, ea. ℥j.
Etheris sulph. ℥iv. M.

The strictest quietude enjoined.

Aug. 25th, 12 M. Passed a night of great misery; clonic spasm constant, except when under the influence of chloroform, which was administered three times. Tonic rigidity has extended to the lower extremities and abdominal muscles. The enema brought away very offensive discharges, and he passed

a small quantity of urine. Ordered in addition: Strychnia, gr. $\frac{1}{12}$, to be given in solution every three hours.

6 P. M. No improvement; rigidity has extended to upper extremities, which are moved with great effort. Continue strychnia; let the patient remain for 20 minutes in a warm bath, containing, in solution, Potass. Tart. Antimonii, ʒiv. Repeat enema of Fœtida and Turpentine every three hours during the night, and have the whole spine well rubbed with

℞ Ol. Croton. Tiglii, ʒi.
Lin. Saponis, ʒiv. M.

Continue inhalations of chloroform, (which he now begs for,) pro re nata, and keep the patient under its influence at least one hour each time.

Aug. 26th. Had no sleep nor rest, except such as the anæsthetic has afforded. Continue treatment and repeat the warm bath, doubling the quantity of Tart. Antim., (ℨviij.,) and let him remain in half an hour. To have at night:

R. Hydrarg. Prot. Chlor. grs. v.
Pulv. Doveri, grs. xii. M.

Aug. 27th. Slept several hours last night, and is decidedly more comfortable this morning. Clonic spasms much diminished both in violence and frequency. Pulse 96, respirations 44 per minute. No action from the bowels. A copious pustulation appears upon the back, and large vesication covering nine square inches between the shoulders, which is directed to be dressed with Ung. Cetacei. Ordered to take in emulsion:

R. Ol. Ricini, ʒi.
Ol. Croton, Tiglii, gr. i. M.

Followed by Fœtida and Turpentine enema. Apply Tart. emetic bath (as before) to hips and lower extremities for half an hour, and give R. Pulv. Doveri, gr. xii. at bed time.

Aug. 28th. The bowels freely moved last night, but abdomen remains very tympanitic; had considerable sleep; clonic spasm much as yesterday. Tonic rigidity remains unabated. After great and painful effort, the jaws can be forced open about one-fourth of an inch, but fly back like a spring trap

when this is relinquished. His tongue is wounded in several places, and very sore. Ordered strychnine, increased to gr. $\frac{1}{16}$ every three hours; also strong chicken soup; antispasmodic enemas continued as before, and anodyne at night.

Aug. 29th. Patient is reported to have passed a far more comfortable night, and slept well. Clonic spasms greatly mitigated, and recur at much longer intervals, during which he is free from pain; but the tonic rigidity is so complete that on attempting to raise either heel, the whole body turns upon the occiput. The wound between the toes remains open with very slight and thin discharge, to which same treatment is continued. The respiration has heretofore been occasionally very much impeded. He has now considerable bronchial rale, and expectorates with difficulty; complains of some dryness about the fauces, and a sense of constriction. Ordered strychnia to be discontinued, and R. Ext. Stramonii, gr. $\frac{1}{4}$, to be given every three hours, or until the pupil indicates its constitutional effect; also, R. Ung. Hydrarg. Fort. ℥i. to be well rubbed into the groins and axilla, night and morning.

Aug. 30. The clonic spasms are scarcely noticed by the patient to-day, but the spastic rigidity remains, and the tympanitis is very distressing. Continue enemas, mercurial frictions, and anodyne at night, with soup diet.

Aug. 31. M. Stramonium was omitted last evening, as the pupil began to indicate its specific action. Bowels acted freely under enemas, but discharges are unhealthy. Sleeps at short intervals, and expresses himself as better. Pulse 90 and feeble; skin cool; less perspiration. To have milk punch in addition to soup.

Sept. 2d. The alimentary canal continues very torpid, and the excessive accumulation of gas, now oppressing respiration, renders him very restless, and prevents sleep. He was directed the turpentine and fœtida made into emulsion, with egg and peppermint water, but immediately vomited the medicine, with considerable bilious matter. Ordered to return to enemas, and continue frictions and anodynes.

Sept. 4th. Very little alteration is observable in the last two days. Ordered R. Sulph. Quinine, gr. iii. to be added to

his enema; continue frictions. Diet and punch as before, and opiate, if rest is not procured.

Sept. 6th. Patient has slept more, looks and feels better. Rigidity of all the muscles much diminished, can flex legs and thighs for the first time since Aug. 26th, but with effort. Tympanitis is decreasing; alvine evacuations, although still requiring enemata to procure them, are assuming a better character. We notice to day a fine pustular eruption, scattered over the whole body, probably from the tart. emetic baths; to continue treatment.

Sept. 9th. Progressive improvement. Had a free alvine discharge to day without persuasion. Sleeps well; pulse 84 and soft; respiration natural; occasional cough, with easy, mucous expectoration; jaws open at least half an inch, and with less effort. Tongue easily protruded; has a slight whitish, but moist coating. There is considerable general emaciation, but a good appetite for food. Muscular rigidity diminishes gradually, and he is able to turn himself in bed. Wound of foot is contracting, and looks healthy, and free from pain. Mouth is not in the slightest degree affected by the mercurials, though used twice a day since Aug. 29th; directed to omit all medicine, to have more solid diet, and an occasional warm bath.

Oct. 7th. Patient has steadily improved since last report. All the functions have acted regularly without medication. He has regained his flesh and spirits, and now walks about with easy and complete command of all his limbs. The wound in the foot is perfectly cicatrized, and he was this day discharged well, having been under active treatment about seventeen days.

In submitting these statements, it is hoped that there will not be imputed to us the fashionable ambition of deducing large results from limited premises, in favor of a specific remedy. In a sphere where so much remains to be accomplished, we think the record of every fact, which is really such, will be rightly appreciated, at least by those who possess the candor to consider, and the intelligence to estimate its true value. In the same spirit we would submit the conclusions which our own observations of this disease have suggested:

I. That the clonic spasm is the great source of danger in this disease, and that it effects this result by the interruption of respiration, and gradual but complete exhaustion of the nervous force.

II. That the cause of this spasm exists in a disordered function of the spinal ganglia.

III. That aid must be sought from remedies which act directly upon the spinal nervous system, and through which this irregular and excessive action may be controlled. Of this class of remedies we now possess little definite knowledge, and renewed investigation is demanded.

IV. That the specific effects of these remedies should be induced early, whilst the disorder is still functional, and before extensive molecular derangement or extravasations, have occurred in the nervous tissues.

V. That the use of such specifics does not contraindicate a resort to other remedial agents at the same time; but that a judicious, and even heroic use of them is not only justifiable, but consonant with rational therapeutics, alike conducive to the comfort of the patient, and the removal of the disease.

Montague Place, Brooklyn.

ART. VII.—*Remarks and Recommendations on the Professional Education of Dentists. By* JOHN TRENOR, M. D., Dentist, of New-York.

It is probably known to many of the readers of the *New-York Journal of Medicine*, that that branch of the medical profession, more immediately appertaining to the practice of dentistry, has recently been brought prominently before the public, by a distinguished practitioner of Philadelphia, Dr. Gardette, and that whatever differences of opinion there may be as to the views he sets forth, there can be none as to the elevated and disinterested motives by which he is actuated. As might have been expected, his views and positions have been warmly assailed by an able and experienced controversalist, Dr. Harris, of Baltimore.

Now, the chief object of the present communication is not so much to take part in this controversy, which is in the hands of those who are abundantly able fully to illustrate and sustain the views which they have respectively assumed, as to spread abroad

the impressions which a number of years of practical experience have presented themselves to the writer's mind, and which may tend to give increased interest and importance to the controversy itself, and possibly, too, to throw such light upon the topics under discussion as may lead to a clearer understanding, and a more just appreciation and decision upon the points at issue.

It is the purpose of the writer to show, that in the practice of dentistry, a thorough knowledge of medicine and surgery is absolutely essential to enable the practitioner clearly to understand and successfully to treat the cases which are constantly coming under his care, sometimes demanding all the skill, experience and acquirements which the most accomplished practitioner is capable of attaining.

That this may be the more fully demonstrated, and easily and clearly understood, it is proposed to treat first, of medical dentistry; secondly, of surgical dentistry; thirdly, of mechanical dentistry; and fourthly, of that course of professional education, by which these several branches can be best acquired and combined; which, with some remarks upon the mode in which this is now endeavored to be attained, will close this communication.

1st. *Of medical dentistry.*—It is a position, the correctness of which will be at once admitted, that in all general derangements of the system, and of local ones also, where the system becomes sympathetically involved, be they short or protracted, mild or severe, characteristic alterations and in the same ratio, are produced upon all the soft parts of the mouth. The altered actions of the several portions, resulting from disease, particularly of the stomach, or of any part of the mucous membrane, are by no signs more decidedly indicated, than by the changed sensations and altered aspect of the lining membrane of the mouth and tongue; hence the universal custom, in all deviations from health, of an examination of this latter organ, from the accuracy of the information it communicates, and from the greater facility with which it can be exposed for inspection. Whatever be the character or severity of this deranged state of the mucous membrane and soft parts of the mouth, the teeth, from their immediate connection with those parts, are necessarily exposed to, and are materially and injuriously influenced by those changes, be they mild or otherwise; whether from altered secretions of the parts, consequent upon derangement of distant organs, or simply from local irritation and inflammation; or, as frequently happens, from both these causes

combined. These are fruitful sources of evil consequences to the teeth, in all stages of existence. It may be proper here to remark, that as the degree of capability of resisting injurious influences on the teeth varies almost in every individual, so likewise does it vary in the same individual at different periods of his age. When the teeth first appear through the gums, they are softer in their texture than as the individual advances in years; so that in old age, they become, where they have been originally healthily formed, extremely hard; consequently, the same deleterious influences, if applied while young, produce infinitely more serious evils than they could do at a later period of life. Hence the necessity of greater attention to the health, at this particular period, on account of the teeth, even though these be perfect in their development. But, if, as most frequently happens, there are imperfections in their formation, and that perchance the health of the person be delicate or precarious, the closest personal and professional care and attention will be needed for their preservation. Not only does all observation and experience fully sustain the correctness of the foregoing remarks, but they establish, with equally unerring certainty, the destructive effects which all deviations from the standard of health exercise upon those important organs. Indeed, there are probably no two facts more popularly associated together, or more unequivocally correct in themselves, as cause and effect, than with bad health to have bad teeth. The influence of a healthy or diseased state of the system is in no particular more decidedly manifested, than upon the organs of mastication. Hence the obvious and absolute necessity that the practitioner who undertakes to treat the diseases of the one, should be familiar with the causes, their character, variety, &c., &c., which produce them in the other. It is true, that with the public and with most professional men, an equally popular, though erroneous impression prevails, that the medicines prescribed in the treatment of diseases, are mainly the causes of the defective teeth, so constantly met with, where the health has been disordered, and medicines necessarily administered. Upon this prejudice homœopathy rests one of its most plausible claims to superiority and to the public confidence, by assuming, that as it is the large quantities and active properties of the medicines administered to the sick, in all other modes of treatment, which are the chief, if not the only cause of the imperfections in the teeth so generally observed after attacks of illness, it follows, that as

their doses are both small and mild, they cannot exert any injurious influence whatever upon these organs. The facts of the case, however, are directly the reverse. For be it remembered, that it is the *disease*, and not the *remedies*, which act so mischievously upon the teeth; and so far, therefore, as the practice of this delusion tends, from its inert and injudicious treatment, unnecessarily to prolong or to aggravate the disease, in the same proportion is it more detrimental to the health and durability of the teeth. As to the unfavorable action of medicines upon those organs, it is a somewhat singular circumstance, that it should have been so very generally overlooked; but it is nevertheless true, that in the whole list of the materia medicæ, there are but two classes of articles which exert any objectionable agency whatever upon them. The one directly, as in the employment of acids for remedial purposes, and the other indirectly, as in violent and long continued salivation, causing the alveolar processes to be destroyed, the teeth to become loose or to fall out, and from the altered character of the secretions of the mouth, to originate decay about the necks and exposed bony surfaces of the teeth, and rapidly to extend decay wherever it had pre-existed. Its tendency, too, to develop other diseases, particularly of a scrofulous character, should also be enumerated among the indirect causes of its being prejudicial to their durability. The practice of severe salivation being now, however, entirely abandoned for the milder form of treatment, which requires merely, that peculiar odour of the breath, or metallic taste in the mouth, as evidence that the system is under the influence of the medicine, and to which extent no injurious effects upon the teeth, or their appendages, will be occasioned, cannot be fairly advanced as one of the objectionable causes, to which allusion has been made; and when, with proper precautions, which are easily observed, the injurious action of acids upon the teeth can be wholly prevented, this wide spread prejudice may be safely asserted to be entirely groundless. It is therefore manifest that the valuable services of the most useful class in the community, are often greatly underrated, and sometimes severely censured for consequences which they had no agency whatever in producing. But while the medical profession is justly vindicated from the charge of producing by their medicines, including acids and mercurials, those injurious effects upon the teeth, which are unquestionably caused by other influences, the effects of the latter medicines (mercurials) when

carried to excess, afford additional and conclusive testimony of what it is the chief purport of the present remarks to illustrate and to sustain, viz., the immediate and powerful influence for good or for evil, which the action of the soft parts of the mouth exercise upon the teeth themselves, in health or under disease.

From the consideration that in all general derangements of the system, whether idiopathic or symptomatic, the lining membrane of the mouth, and the connecting soft parts, partake likewise of this altered action, as set forth in the preceding statements, and that this again often materially implicates the teeth, we pass to a more practical illustration of some of the consequences of those changes, for the purpose of still farther strengthening the position here assumed. Among the variety of those changes there are some so stealthy in their commencement and early progress, as scarcely to attract any attention from the patients themselves, until the durability of their teeth, or at least of many of them, is seriously compromised. The changed secretions of the mouth, seeming gradually, but constantly, to soften and penetrate into the substance of the teeth, until considerable portions of their bony structure are entirely disorganized. There are others, again connected with derangements of the stomach, and depending upon or excited into action by the changes in the weather, and which are of very frequent occurrence, attended with a good deal of pain and irritation of the soft parts of the mouth, sometimes developing pretty active inflammation in those parts, producing very serious annoyance, and not unfrequently great pain and suffering, apparently in the teeth themselves, and which is much aggravated by any attempt to use the teeth for the ordinary purposes for which they are intended. Under such circumstances, the dentist is at once applied to, from the very natural inference, that such cases come more appropriately within his province. If he be without medical knowledge, and that perchance no defect can be discovered in the teeth, the patient is very coolly told that nothing of consequence is the matter with him, and that with time and patience, all annoyance will gradually subside. But if, unfortunately, some of his teeth are found to be decaying, and which most frequently happens, the mere mechanical or imperfectly medically educated operator, goes to work at once filling and filing, scraping and extracting, aggravating and procrastinating tenfold the patient's suffering, ultimately ending, in a great many instances, in swellings and ulcerations of

the gums, and the loss of one, or it may be of several of his teeth. Every experienced practitioner of dentistry, whose professional acquirements correspond with what the public has a right to expect, is constantly called upon for advice and relief in such cases, and must be forcibly struck with the woeful mismanagement, which, in numberless instances, befall the poor patients, from the ignorance or incompetency of those to whom they may have applied; for the least evil that can happen to them in such hands, is to be let alone. The educated and intelligent practitioner of dentistry, however, while he sees the impropriety of any present operations, as certain to produce aggravated sufferings, will at once be able to prescribe the necessary remedies for his immediate and effectual relief; or if the case be one complicated with much general derangement of the system or otherwise, beyond the responsibility which he ought to assume, and which if he be duly qualified for the position in which he is placed, he will have no difficulty in ascertaining, he will promptly direct his patient to the care and advice of his more experienced medical practitioners.

It would be an endless task to begin to enumerate but a tithe of the derangements of the system, in which the complication here indicated may and does occur. Every medical man will perceive them at a glance; but as a familiar and forcible illustration, and one of frequent occurrence, in which medical acquirements are so essential to the practitioner of dentistry, the influenzas, with which, both in spring and fall, we are so regularly visited, may be justly presented as a striking example.

In these cases, the attack usually commences with slight irritation about the fauces; and on looking into the back part of the mouth, the edges of the anterior and posterior arches of the soft palate appear more or less inflamed, the inflammation extending frequently to the uvula, which is generally and sometimes considerably elongated. Soon fits of sneezing occur, with watery dejections from the eyes and nose, and a sense of uneasiness and fullness across the eyebrows and forehead. It now goes on rapidly to develop itself, and the progress of the attack, particularly if severe, is marked by a suspension of mucous secretions from the frontal sinuses and antrums, with a sense of weight and great uneasiness about those regions. Shooting pains begin to be felt through the temples and cheeks and sockets of the teeth, the latter seeming to be elongated or forced out of their sockets for some distance; are loose to the touch, and so very sore and sensitive that

they cannot be pressed together without severe pain, and to masticate the food is an utter impossibility. Indeed, the force of the disease seems to be often concentrated upon these organs. At night, particularly, the pain in or about their sockets is most intense, precluding all possibility of sleep, the greater part of the night being frequently passed in pacing the room, until at length, from sheer fatigue and exhaustion, the patient throws himself on his bed, and falls into a short but unrefreshing slumber.

It is at this stage of the complaint that the dentist is usually called on; and if he be deficient in medical intelligence, and particularly if the teeth be at all defective, and it more frequently happens that they are so, more or less, the poor patient is at once subjected to a routine of operations, at a time and under circumstances when none at all are admissible, and which are always attended with increased torture at the time, and certain to be followed by a long train of sufferings and evils, by no means easy effectually to remove.

The increased severity of the disease at night is doubtless owing to the greater determination of blood to the head in the recumbent posture, and the warmth of the bed almost invariably adds additional fuel to the flame. Whenever the patient complains of having been kept awake at night, this itself will be found a distinguishing symptom, indicating active inflammation of those parts, from simple exposure and irritation of the nerve of a tooth, and when depletion by general means will be essentially necessary, as by the use of active purgatives, and after the bowels have been freely evacuated, if much pain be still felt in the part, then from three to six leeches *on the gums* will give very decided relief; but in some very severe cases, the bowels being still kept soluble, local irritants, as synapisms, or even fly blisters behind the ears, may be used with great advantage, effectually to remove the inflammation, and entirely to subdue all irritation. Pedeluvia, before depletion, will be found to be objectionable, but after this has been generally and locally employed, they act very favorably. Change of position from a recumbent to an upright posture, will generally moderate considerably the pain, though when the attack has fairly set in, this will not always, or at least for some time, mitigate much its intensity. During the day, and while erect, the patient feels much easier; but after taking food, particularly of an exciting or stimulating nature, the pain is very apt again to recur, but more particularly

on retiring to bed, it is sure to run the same course as before; and this is night after night repeated, until the remedies remove the disease, or the attack wears itself out, and the patient is gradually restored to his accustomed good health. In cases as acute as is here presented, the pulse, for the first two or three days, is a good deal accelerated, but is more of a nervous than of a congestive character. The skin is heated and dry, with frequent sensations of flushing. It is not, however, so much for the purpose of giving minutely the symptoms or treatment of this form of complaint, that the foregoing details have been entered upon, as to show, that besides the derangements which attack those organs, and their appendages, requiring the mechanical dexterity of the dentist, they are likewise subject to deviations from health, so grave as to require, in their treatment, the nicest medical discrimination, and in some instances, as will be presently shown, so complicated, as quite as much to embarrass, even the experienced medical practitioner, as they are entirely beyond the comprehension of the mere mechanical manipulator in dentistry.

As the most useful and probably satisfactory mode of illustrating and sustaining the correctness of the foregoing views, the following cases are given, as taken from many of a similar character, which have from time to time fallen under the observation and professional attention of the writer, and which are such as all practicing dentists, be they medically educated or not, are frequently solicited to advise upon and to treat.

Case of Mr. P. S.—He is 28 years of age; has always enjoyed excellent health until attacked by his present complaint, from which he has endured, for a long time past, severe physical and mental suffering. The former from the frequently recurring and sometimes intense pain, and the latter, because he feared that from the inability of his medical advisers to reach the seat or comprehend the cause of his disease, and the little benefit derived from the various remedies employed, some malady of an incurable character, was gradually but steadily undermining his health, and must ultimately and utterly destroy his constitution.

His illness began some eighteen months ago, with shooting pain on the left side of his face, between the angle of the lower jaw and the ear. At first it annoyed him chiefly at night, leaving, during the day, a sensation of soreness in the parts, particularly when rubbed. It soon spread, however, extending over the side

of the face and head, and down the neck to the shoulder. The attacks now became spasmodic, and intensely painful, recurring during the day, as well as at night, the latter being repeatedly passed without sleep or rest of any kind. His medical adviser, considering it an inflammatory neuralgic affection, in one of rather a full habit, with a good deal of excitement, whether a cause or consequence, or both, of his disease, which partook very much of the character of inflammatory rheumatism, put him under a course of pretty active purgatives, local depletion by leeches, local irritants, low diet and rest. This course was pursued until he had become considerably enfeebled, but his sufferings seemed rather to augment than to be diminished; at least there was no alleviation of the local troubles, and as he became weaker, his nervous system was much more sensitive, and consequently he felt the pain from the disease more acutely. No benefit resulting from this mode of treatment, he was directed to have his teeth closely examined, to ascertain if the root of the evil might not be there located. He had had them put thoroughly in order shortly before the commencement of this complaint, and on the affected side, the lower back tooth, which had been filled at that time, was very sensitive during the operation, but not more so than several others elsewhere located, which had been, likewise, at the same time, operated upon. The result of this examination was, the unqualified opinion of the dentist, (a mere mechanical one,) that his teeth had no agency in producing, nor were they in any way connected with his disease.

He was now put on a course of strengthening medicines, as columbo, valerian and gentian, &c., and nourishing diet, under which there seemed to be an improvement, though occasionally he would have very violent returns of pain. He continued to get better, for two months or more, when it again and suddenly returned with all its wonted severity. As it now seemed to assume more of a periodic character, he was put on the use of quinine. Fowler's solution was in addition tried, as well as other medicines of this class, with the effect of seeming to control the complaint for a while, when it would again return with increased violence. With these remedies, a variety of others, chiefly of a local character, were had recourse to, during the severest periods of the paroxysms, the suggestions of sympathising friends and experienced nurses. The state of the weather had obviously considerable influence upon it. When that changed suddenly to

cold and damp, the attacks were decidedly worse. At one time it appeared to have passed away, more from wearing itself out than from any controlling influence pertaining to any of the articles which were, from first to last, employed in the endeavor to overcome it. This calm proved, however, to be but of short duration, for it very soon returned with all its former severity, without any apparent exciting cause, except it was from having taken a slight cold. From that time to the present he has seldom been entirely free from it for any lengthened period; the best medical aid seemed to be powerless in subduing it. As might be supposed, his health began seriously to suffer, not more from the effects of the disease and the variety and severity of the remedies employed, than from the mental anxiety and distress in the apprehension that he was henceforth to be burdened with some lingering, and painful and incurable malady. So entirely had either medicines or dentistry heretofore failed in affording him any relief, that his calling upon me, was more from a kind of forlorn hope, a catching at straws—that some benefit might be possibly obtained, than from any confident feeling that such was at all likely to be the case.

After duly weighing all the circumstances of this interesting case, as here given, the first inference which forced itself upon the mind, was, that previous to the operations on his teeth, he had no inconvenience whatever, and that his system, up to that period, was in a perfectly healthy condition. Nor after the most minute examination was there any good reason for supposing that his disease was caused or kept up by any constitutional difficulty, all the functions being as regularly and as healthily performed as could be expected, under his present and past state of nervous sensitiveness and excitement. As the attacks of pain always began on the left side of the face, and about the same spot, or near to it, and as this was quite in the vicinity of a tooth which had been operated upon immediately before his malady appeared, and likewise, as it was during their existence, exceedingly painful, suspicion was naturally attracted to this point. On examining this tooth closely, it was obvious, to the experienced eye, that a diseased state of its internal pulp existed, which, of itself, was sufficient to cause and to account for all that he had suffered. This conclusion was warranted—1st. Because, up to the time of the operations on his teeth, his health had been perfectly good, without ache or pain of any kind. 2d. While this particu-

lar tooth was being operated upon, it was exceedingly sensitive. 3d. Whenever afterwards, the painful spasms came on, they always commenced in this particular location. 4th. There was not now any more cause, general or local, from derangement in his system for the disease in question, than before it first made its appearance, except the one to which it is particularly attributed. 5th. The evidence which the appearance of the tooth itself afforded of internal disease; and, 6th. Experience having repeatedly presented cases and consequences in many particulars extremely similar; so much so, as to induce the opinion given to the patient, at the first interview, and without having made any examination of the parts, that this tooth would be found to be the sole cause of all he had endured. On removing the filling from it, the correctness of the opinion was fully verified. It had been filled very carefully with an amalgam of silver and quicksilver, and so far as the filling was concerned, had occasioned no injurious influence or irritation whatever. But on taking out this filling, all obscurity was at once cleared up. When operated upon before, the decay was found to have penetrated so deep as probably to have reached, or nearly so, the internal canal of the tooth. Of this the operator had been warned by the depth and direction of the decay, as well as the peculiar character of the pain while operating; he therefore desisted, before removing all the caries, and filled the cavity carefully. The caries, however, continued to progress, and if it had not then, it soon did reach the organized pulp within the canal of the tooth. The contact of this carious matter always produces irritation of this pulp substance, followed by inflammation, and ultimately by its total disorganization. This is sometimes slow in being accomplished, while in others it takes place very rapidly. It often, too, proceeds with little or no sensation or uneasiness to the patient, while, again, its progress is marked by a great deal of severe pain and suffering. But the most singular peculiarity, and one often met with in such cases, and some others, which will be presently noticed, and which, when it does occur, involves them in much obscurity, and adds greatly to the difficulty of a correct diagnosis, is the fact, that the sensation of pain, instead of being felt where the cause of irritation is applied, and where the irritation itself exists, is at a point more or less distant, and where no local evidence of disease can be detected. All experienced and observant practitioners are familiar with the circumstance that

often, while operating upon a tooth, particularly in those of nervous temperament, it is by no means uncommon for them to refer the sensation, even though it be a very painful one, to a tooth distant from the one under treatment, in which there is no peculiar feeling whatever; the sensation being sometimes referred to a tooth in the opposite jaw, the point of impression and that of recognition being different, and often quite distant. So was it in the present case.

After taking out the filling, and pressing upon the soft decayed surface beneath, a severe spasm, such as he had been accustomed to experience, was instantly excited. This was likewise the case while removing the decay; whenever the instrument pressed upon this spot, a repetition of this severe nervous spasm was invariably produced, causing the patient to exclaim, "that is the seat and source of all the agony I have endured!" After carefully removing all the carious bone, the internal pulp was entirely exposed and clearly visible, and its appearance fully indicated the cause of all that the patient had suffered. Immediately under where the bone above was in a state of caries, a small portion of the pulp was in a state of disorganization, of a dark color, fœtid odor, and a discolored watery matter oozed out. All doubt was now removed, as to the cause, character and mode of cure of the case. With the oozing out of this discolored watery discharge, he expressed himself entirely relieved from every uneasy sensation, unless the part was pressed upon. The moisture now discharged, had no doubt kept up slight pressure upon the pulp, morbidly sensitive as it was, from the presence and contact of this diseased and disorganized portion, which was all sufficient to produce the painful spasmodic attacks he had so long endured, and which this slight watery discharge entirely relieved, as he experienced no more uneasiness from it, unless it was touched; with directions to put a small quantity of tannin, on a little piece of moist cotton, very lightly into the cavity, twice a day, he was dismissed for Newport, to recruit his health, and from which he returned in about eight weeks, so rosy, robust and cheerful, as scarcely to be recognised. He had not had the slightest sensation of pain, either in the tooth or elsewhere during his absence, and on examination, the internal pulp of the tooth was found to be totally destroyed. This was carefully and entirely cleaned out, and the cavity accurately filled. From that time forward, there is good reason to believe, that he has had no farther annoyance

whatever. Here, it must be admitted, is a very satisfactory illustration of the inability of the medical practitioner, with all the aid of the mere mechanical dentist, to cope with cases of such and similar character. That which follows is intended to show how inaccurate are the views, and injurious the practice, of medical men, in cases left entirely to their control, but which more properly belong to the dentist, merely observing that it is one of very common occurrence.

Was consulted by Miss ——, as to the character of a swelling on the right side of the inferior maxillary bone, chiefly about the root of the second bicuspid, and extending some distance each way. It was quite hard, except in the centre, which indicated something of fluctuation, and was here somewhat tender to pressure, but elsewhere it was not so. This bicuspid tooth was very much decayed, and the internal vessels or pulp entirely disorganized. Some weeks previous she was attacked with severe pain on this side of the face. At night, particularly, it was so intense, as to preclude all possibility of sleep, and this recurred several nights in succession. This led her physician, to whom only she applied for relief, to the impression, that it was simply a neuralgic affection, of an intermittent character, as the parts did not present, he thought, sufficient *ocular* evidence of inflammation to account for the severity of the pain. He therefore put her under a course of quinine, in pretty ample doses, for several days, not only without relief, but being each succeeding day decidedly worse, until finally it commenced swelling, and as this increased, the pain gradually and entirely subsided. Her anxiety as to the character of this swelling was much augmented, from having had a similar state of things some two or three years previous, at the roots of the second tooth behind the one now the seat of disease, and which finally opened through the lower part of the cheek, and on the outside of the face, accompanied with a discharge which could not be cured but by extracting the tooth, and causing a very unsightly scar for ever after. In the present instance, as well as in the former, what should have been done, was not done, and what was done, was wrong. The following case exhibits the sad consequences resulting from the treatment by a dentist of unquestionable mechanical dexterity, but without medical or surgical skill or acquirements.

Was requested to visit, in consultation with her surgical adviser, a very eminent one, Miss H., who had been suffering

from an affection of the right side of her face for nearly three months, and notwithstanding every effort of her dentist for her relief, and who had been in attendance from the commencement of her attack, she was growing obviously and every day decidedly worse. By direction of her surgeon, who had but recently seen her, leeches had been applied to the cheek to reduce the swelling, and the bite of one of them had opened into an abscess under the eye, from which a copious discharge of pus issued, and which had been constantly augmenting in quantity. Previous to the discharge under the eye, matter had issued from different openings in the gums of that side. On looking into her mouth, a sad spectacle presented itself. *All her front upper teeth, including the first bicuspid on the left side, and first and second bicuspid and first large molar tooth on the right side, had been, one after another, extracted,* by her dentist, under a hope, as he expressed it, that each one might turn out to be the cause of the disease, and by such removal the complaint be cured. The soft parts were greatly swollen from the effects of these several operations, and the disease growing constantly worse, from the inflammation which necessarily follows the extraction of such a large and continuous number of teeth. The sole cause and origin of the suffering of this unfortunate patient was located at the root of the right superior wisdom tooth, which, being extracted, the disease began at once to subside. While her dentist, being ignorant of the cause, character or symptoms of disease, and which a knowledge of medicine and surgery would have imparted to him, went on committing one error after another, until he had produced this unnecessarily dilapidated state of her mouth, her appearance and her health.

The first of the foregoing cases will show clearly enough the inability of the medical practitioner, aided though he be by the mere mechanical dentist, fully to comprehend, or successfully to treat diseases of such and of similar character. In the second instance is pointed out a class of complaints which more correctly come within the sphere of the educated dentist, but he must be fully instructed in all the requisites of his department. The practitioner of medicine is obviously incompetent to their management. In the third is exhibited the incapacity of the mere mechanical dentist even to comprehend, much less to prescribe, understandingly, for the treatment of diseases on which he is nevertheless constantly consulted. While by the dentist,

whose course of study has made him familiar with the human system in health and in disease, local and general, such cases are treated with as much certainty, safety and success, as any other class of ailments can be by the most intelligent and experienced practitioners of medicine.

2d. On passing to the consideration of surgery, as forming a necessary element in the professional attainments of the dentist, we are forcibly struck with the effect of habit in familiarizing and thus reconciling our minds to what, in itself, is exceedingly inconsistent, if not altogether incorrect. While the uselessness of medical knowledge to the practitioner of dentistry is attempted to be maintained by those of weight and authority, at least on most other professional topics, the necessity of surgical knowledge to the dentist is very generally conceded, yet there is no hazard in asserting the impossibility of a thorough proficiency in surgery, unaided by or unconnected with a corresponding degree of medical acquirements, yet custom, and even authority require, that the dentist should possess the one, while it denies, in this case, the necessity of the other. If it were possible to make them two separate and distinct branches, and in their pursuit and application entirely independent of each other, and it were asked which of the two would be most useful to the public, and most needed by the dentist, the preference must at once be given to medicine. It is to cases coming under this department, that his attention is almost constantly required, and they are also more frequently the cause of, or otherwise complicated with, derangement of the whole system. While in those more strictly of a surgical character, professional advice is not so often sought for or necessary, unless, indeed the operations of filling, filing, cleaning the teeth, &c., &c., be classed under this head, but which more appropriately belong to the mechanical department. These remarks, however, must be understood as intended to show the comparative importance of the one over the other, but not that either can be under any circumstances dispensed with. In fact, that an intimate acquaintance with surgery is likewise necessary, in the practice of dentistry, it is the object of the following remarks to demonstrate.

That the mouth should be liable to a variety of diseases, frequently entirely local as to extent, is by no means singular, when we remember the vicissitudes of heat and cold, and the endless varieties and sometimes entirely opposite characters of the innu-

merable articles which constantly pass into it; add to this the causes of irritation and disease, of which the teeth are often either the exciting cause or the immediate source, and it will be but reasonable to expect that the soft parts of the mouth must often be the seat of derangement, sometimes very severe in its character. Of these, a very numerous class are consequent upon a disordered state of the system, particularly of the stomach or bowels, as has been elsewhere demonstrated, and which do not properly come under the head of surgery; but those which do belong to this division, are still numerous and complicated enough to call for, in their treatment, discrimination, intelligence and experience. When required to investigate the character, or account for the intense suffering so often experienced in the derangements of those parts, both physicians and surgeons are too apt to overlook their peculiar anatomical structure, to permit them to arrive at clear or correct conclusions in those cases, and their mode of treatment is consequently too often injudicious and unsuccessful. The second case which has been detailed is, by no means, an exaggerated illustration of what but too frequently takes place where the physician or surgeon only directs the treatment. From the peculiar structure of those parts, some of the signs of inflammation, most obvious in tissues less dense and more yielding, are here so trifling or obscure, and the pain so intense, as to induce the attending physician to believe that it is chiefly an affection of the nerves, without any particular irritation or derangement in the parts immediately surrounding or connected with them. It is from this view of the matter that quinine and other tonics are so freely and frequently administered. It is, however, very generally a purely inflammatory affection, and, if the structure in which it is located was more yielding in its character, so that it could readily expand or swell, we should then have here, as in other pliable and more fleshy tissues, redness and swelling in proportion to the heat and pain; in fact, the pain would be less, as the pliability of the structure was greater. It is from this inability to expand, therefore, (supposing the cause of irritation to be equal,) that the pain in these cases is so much more intense, demanding, of course, the more prompt and free employment of depleting remedies. After the use of these means and the application of counter irritants, in some very nervous temperaments, especially if the affection has been of some duration, tonics are often useful in breaking a diseased habit, and will materially aid in restoring the parts to a healthy

condition. Again, this same structure frequently leads to errors of opinion as to the character of the swelling and enlargements, which are not unfrequently here met with. The most intelligent and experienced surgical practitioners are sometimes entirely at fault in their diagnosis of them. The following case, which is by no means an isolated one, will so clearly illustrate the correctness of this position, as to render all argument in the matter entirely superfluous:

Was requested to assist at an operation for the removal of a malignant tumor, situated on the right superior maxillary bone, covering chiefly the external plate of the socket of the first molar tooth, in a child of about 12 years of age. Several medical and surgical gentlemen were present, and the operation was about being proceeded with, when it was deemed necessary first to extract the first molar tooth and the eye tooth of the same side, it being intended to make a semi-circular section of the jaw, high enough to pass a little above the swelling. The writer assured the gentlemen present that there was nothing of a malignant character in the tumor, and that the only operation necessary was the removal of the molar tooth, together with a proper course of treatment to restore the child's health, which was very much disordered and enfeebled, when all evidence of disease would very soon and entirely pass away. They nevertheless still persisted in removing three of the teeth, and in cutting out a piece of the alveolar socket, but which would have been very soon absorbed, after the loss of the teeth. It was now found that the piece of socket cut away was *perfectly sound.* This effectually opened their eyes as to the true state of the case, and of course further proceedings were wisely deemed unnecessary. Now the error in diagnosis here, was owing to the peculiar character of this texture; had a tumor of similar feel and aspect been located in parts less dense and more yielding, there would have been more warrant for the opinion which had been given of the nature of this case, in the first instance. As the parts involved in the swelling were not removed by the operation, and as the child soon after fully recovered, the error in deciding the case to have been malignant, was made conclusive. As a dentist constantly sees these parts, under all their varied aspects of health and disease, if he has been made familiar with medicine and surgery, it would be very improbable that he cou'd ever commit such serious mistakes. There are minor matters of constant occur-

rence, requiring, on the part of the dentist, the kind and extent of knowledge here contended for. The treatment of fistulous openings at the roots of teeth, which are constantly met with, demand an entirely different course from what in other branches of surgery would be necessary. The diseases of the gums, whether from local or general causes, involving, as they do, the loss or preservation of the teeth, as well by decay as by destruction of the alveolar sockets, forming a very extensive class, calling for a kind of knowledge which must not be expected from, and certainly will not be possessed by, the mere mechanical practitioner. The simple allusion to these matters must satisfy every intelligent mind that the education of the dentist must reach infinitely beyond the mere ends of his fingers, if the capabilities of the profession are intended to be made fully available, and the interests of the public are duly and truly regarded.

3d. In taking up the third branch of inquiry, viz., mechanical dexterity and proficiency, as a requisite attainment in the education of a dentist, as its necessity is so obvious and so universally conceded, it might be supposed that very little need be said, or would be required under this head. There are, nevertheless, some very mistaken ideas entertained upon this subject, not merely by the public and even by the medical profession, but by the professors of dentistry themselves, and which makes it necessary, therefore, to discuss this matter somewhat at large.

It is a very commonly received, though exceedingly erroneous opinion, that mechanical ingenuity and dexterity are the chief, if not the only acquirements which are necessary to the successful practitioner of dentistry. That it is an essential auxiliary, is most certain, but that it is not the most difficult to acquire, nor the most important in practice, it is believed can be very clearly and conclusively established. On this point, the writer is particularly desirous of being clearly understood. The mechanical aptitude and tact which the most successful operator requires, is that which most persons, with ordinary dexterity and faithful application, can readily and certainly attain. It does not surpass, and probably on a fair comparison, scarcely equals that, without which a surgeon can never attain to the rank of a successful and an accomplished practitioner. In what more properly constitutes the mechanical department of dentistry, embracing mainly the setting and arranging of artificial teeth in all their details, as well as all operations upon the natural teeth, *in situ*, though most

generally requiring a good deal of management and dexterity, and always the nicest attention to neatness and finish, yet it is always within certain limits which are of constant occurrence, so that the path, though with many deviations, seldom passes beyond certain bounds, all the peculiarities of which are so frequently met with, that a few years experience makes him necessarily familiar with them. It may be called a somewhat complicated, though it is a beaten path. In the pursuit of surgery, on the other hand, the mechanical requirements are by no means within similar bounds, and while their sphere is infinitely more extensive, and sometimes even more complicated, their dissimilarity, the one from the other, is equally apparent; nor are any of them met with sufficiently often in the most extensive individual practice, to furnish an equal amount of experience, as in dentistry, in a given time.

In thus endeavoring to define the true relative position of mechanical, to medical and surgical dentistry, it must not be understood as an intention to underrate its true value, inasmuch as a proficiency in this department is quite as essential to the duly qualified practitioner as in either of the other branches. But as higher mental qualifications, both natural and acquired, are requisite to obtain a knowledge of medicine and surgery, than in the mechanical department, and as the former, when fully understood and properly applied, are capable of conferring more important benefits in relieving or removing the evils inseparable from our organization, they necessarily take precedence in measuring the scale of importance to which each is respectively entitled.

Such, then, is an exposition of the attainments which every practitioner of dentistry should have acquired, before assuming the responsibilities which devolve upon him, in entering upon his professional career.

That those who present themselves before the public for their confidence and support, whose capabilities rest solely upon their mechanical expertness and ingenuity, are more than one-third educated, is to make a very liberal allowance for all that, in a professional point of view, they are entitled to; and that with all such (and they are but too numerous) a lamentable deficiency exists, is most certain, and which demands from those who can in a reasonable manner aid in mitigating or removing the evil, that they should be anxious, earnest and prompt in applying the remedy.

4th. In proceeding to point out the mode in which this can be most effectually accomplished, the fourth division of our subject is at once entered upon, viz.: in what manner that course of education, necessary to a practitioner of dentistry, can be best acquired.

As already indicated in the preceding pages, medicine and surgery, which rank first in importance and are most difficult to attain, should receive the largest portion of his time and attention; in fact, they should be as thoroughly mastered as if they were intended to constitute the chief objects of his future career. For it must be borne in mind, that after he has once entered upon his professional pursuits, and particularly when his time shall have become much occupied with its duties, his opportunities of practical improvement and experience in those branches will necessarily become materially circumscribed, while the necessities for this kind of knowledge will be daily augmenting. He should, therefore, be the more diligent in gaining every possible degree of proficiency in them, while he may have the time and the opportunity. Having such objects in view, no one, it is presumed, will undertake to deny or to doubt, but that a well organized medical school affords the most efficient fountain from which the knowledge here indicated can be most effectually drawn. When it has been obtained, in accordance with the rules and requirements of our medical schools, he may be considered as having mastered full two-thirds of what should constitute his professional attainments. The next step in his career is the application of the principles he has now become familiar with, to the speciality to which it is his intention to devote himself; and here it is that the deficiency in our medical schools becomes apparent. There is not, it is believed, a medical school in the country, in which either of the professors of the practice of medicine or of surgery ever make the slightest allusion, in their lectures, to this speciality, the professors of anatomy being the only ones who touch at all upon the topic, and, for all practical purposes, the little they do say is altogether useless; in fact, it must be considered as totally neglected. That this is wrong, it is presumed, will not be doubted, but the extent to which it is so, notwithstanding all the arguments and illustrations contained in the preceding pages, is but faintly traced. Under our present imperfect system, therefore, when the student of dentistry has fully qualified himself, by attendance on lectures, in perfecting himself in the two branches of medicine

and surgery, their practical application to the cases which constantly come under the care of the dentist, with all their peculiarities, which are neither few nor simple, and which have been elsewhere dwelt upon somewhat in detail, together with what appertains to the mechanical department, is now only to be had in the private office of the preceptor. Of the benefits to be obtained from this source, every one conversant with the study of medicine is perfectly familiar, and to the student of dentistry it is equally necessary and useful. But that there are also advantages in both departments, from public lectures, which no private office or instruction can afford, is equally undeniable. Of the very large number of those who practice this speciality, a great many, it is believed, never avail themselves of this source of improvement; one cause of which, no doubt is, that their previous attainments have not been such as to enable them properly to estimate the usefulness, or even to comprehend the necessity of so doing, but the most influential one may, with great justice, be attributed to the facility with which those in the practice of the profession receive, as pupils, to instruct, *only in the mechanical department*, those who never have, nor ever intend properly to qualify themselves, either in medicine or surgery.

To the serious consideration of the trustees and faculties of our respective medical institutions, this subject strongly commends itself, for if the evil is ever to be corrected, it is by them only that it can be effectually done. If it should receive from them that attention to which, from its importance, it must be admitted that it is entitled, all these difficulties and impediments could be speedily and entirely removed, and this branch of the profession would be rendered infinitely more successful in practice, and more respectable in character, and far more extensively useful to the public.

The most obvious, and, it is believed, the only certain mode by which ends so desirable could be obtained, would be by constituting a professor who should give a regular and full course of lectures on this branch in our medical schools, and in this way, its true principles and correct practice would be as effectually inculcated, and its peculiarities and difficulties, whether medical, surgical or mechanical, as fully explained and as clearly demonstrated, as in that of any other department of medical science. The public, too, would soon draw the line of distinction between those who were, and those who were not properly qualified, simply because it is its interest to do so; and the effect would be,

that charlatans and impostors would greatly diminish in this particular pursuit, if they did not entirely disappear. In fact, every reflecting mind must be perfectly satisfied, that in every department of human pursuit, but particularly in medical science, and through all its branches and ramifications, the surest safeguard to the public against injury or imposition, is in the inculcation and diffusion of intelligence, by means of a well organized system of instruction.

These are not the only considerations, however, which press upon the attention of our trustees and faculties, the advantage of a regular course of instruction on dentistry, in our medical seminaries. Of the very large number of students who resort to our medical schools, it is probable that two-thirds of them, possibly more, become resident practitioners in the country, or in locations where duly qualified dentists are not to be met with, and consequently these physicians are constantly called upon for advice, and are frequently compelled to the performance of many operations in this branch, but with what benefit to the public, may be easily judged of from the entire want of all means of instruction on this subject, in all our medical colleges, as at present organized. This is a state of things so obviously wrong, that it ought not to be allowed to exist beyond a period when a remedy can be applied.

So far, too, from such an additional professorship decreasing the number of students, it is conceived that it might be so arranged as very materially to add to them.

Throughout the foregoing pages the position is so decidedly taken, of the entire want, up to the present period, of any efficient systematized course of instruction in dentistry, that a few remarks here, for the purpose of explanation and elucidation, it is hoped will not be considered misplaced or unnecessary.

It has been a leading object in the preceding remarks, to establish the paramount importance of a thorough acquaintance with medicine and surgery, as well as mechanical knowledge, to the practitioner in this particular branch, before he can be considered fully qualified for the performance of its duties.

As our medical schools are open to all who choose to resort to them, and as students of dentistry can there obtain far the most important part of their professional education, it is obvious, that to those who choose to take the time and pains, and can command the means, together with the aid of private instruction in the

office of a preceptor, they have always had, and still have, the means to qualify themselves in this particular branch. But this is a much more circuitous, tedious and expensive mode of proceeding, than if it were attached, as already recommended, to our medical colleges, as a part of their regular course of education; and this no doubt has been, too, a very influential reason why it has not been oftener resorted to. But there is a much more serious disadvantage in the way than even this view of the matter presents. There is no compulsion as to the length of time the student shall pursue his preparatory studies; there is no examination to test the student's competency to become a practitioner; nor can the public look to any responsible and reliable source for evidence of the student's qualifications. It has not been assumed, therefore, that an efficient course of education could not, heretofore, nor cannot now be obtained, because it would not be correct to do so, but that it has been, and still is, under such disadvantages, that very few have been induced to avail themselves of it. This is the less to be wondered at, when it is known, that in the face of these difficulties, the inducement is held out to students, by those in the practice of the profession, to give them instruction in their offices for a few months only, and then countenance, by the sanction of their names, these imperfectly educated students in presenting themselves professionally before the public. Such temptations are too strong to a large majority of students in their early educational career, to be resisted. And that such irregularities do prevail, to an immense extent, among a large number of those in the practice of this speciality, is too notorious to admit of doubt or denial.

While these restraining influences continue to operate, the difficulties complained of will continue to exist, and numberless uneducated practitioners will still be found to prevail.

Under the plea of remedying all these evils, what are termed dental colleges have been recently brought into existence. Conscious of the wants in this branch of the medical profession, and of the obvious inefficiency of a large number of those who appear in the capacity of its practitioners, and a belief taken, if not altogether for granted, certainly without sufficient investigation, that these institutions must necessarily remedy the deficiencies so generally felt and justly complained of, some of the members of the medical profession have accorded to them a degree of countenance and approbation, to which it can be easily shown,

that they are by no means entitled. They come before the public with such confident promises and plausible pretensions, and as at present constituted, are so decidedly inefficient, that they are a greater drawback to improvement than if they had never existed. They profess to remedy an evil, which they most effectually and glaringly magnify. They hold out the idea of giving a complete and finished course of instruction on dentistry, while full two-thirds of what should be taught, and that the most important, too, viz., all the instruction which every medical school inculcates in medicine and surgery, it does not enter into their arrangements, nor do they possess the ability, with any degree of usefulness or benefit, to perform.

Throughout the preceding pages, the absolute necessity of a thorough medical and surgical education to a practitioner of dentistry, has been demonstrated by an array of facts sufficiently numerous and imposing, and, it is hoped, by arguments sufficiently clear and convincing, fully to establish the correctness of the position which it is the object of this communication to elucidate and to maintain. Where, then, it may be asked, and under what circumstances, can this knowledge be best obtained? Obviously, in a well organized medical school *only*. Such a school as could equally well qualify a physician, a surgeon, an aurist, an oculist or a lithotomist; and no institution which is incapable of educating the latter for their professional career, is at all more competent to impart the requisite degree of knowledge to the former. It should ever be borne in mind, that the public have nothing to apprehend from a man's understanding his pursuit in life too well, and to the medical profession throughout all its branches, is this remark more particularly applicable.

PART SECOND.

CRITICAL ANALYSIS.

ART. VIII.—*A Practical Treatise on the Diseases and Injuries of the Urinary Bladder, the Prostate Gland, and the Urethra.* By S. D. GROSS, M. D., Prof. of Surgery in the University of Louisville; Member of the American Medical Association; Author of "Elements of Pathological Anatomy," &c., &c. With one hundred and six Illustrations. Philadelphia: Blanchard & Lea. 1851. 8vo., pp. 726.

Clinique Medico-Chirurgicale, du PROF. LALLEMAND. Tome *Premier*. (Art. Retrécissemens de l'Urèthre. Affections de la Prostate.) Paris, 1845.

Medical and Surgical Clinique of PROF. LALLEMAND. Vol. I. (Article Strictures of the Urethra, Diseases of the Prostate Gland.)

Bibliothèque du Médecin Praticien. Tomes Troisième et Quatrième. Maladies des Organes Génitaux chez l'Homme. Paris, 1845–46. pp. 1466.

(*Library of the Practical Physician.* Vol. III. and IV. Diseases of the Genital Organs in man.)

Traité Pratique sur les Maladies des Organs Genito-Urinaires, par le DOCTEUR CIVIALE. Paris, 1850–51. 3 vol. in 8. fig. pp. 1728.

A Practical Treatise on the Diseases of the Genito-Urinary Apparatus, by Dr. Civiale, &c., with plates.

Traité des Rétrécissements Organiques de l'Urètre, &c., par VICTOR PERREVE. (Ouvrage placé au premier rang pour le Prix d'Argenteuil, sur le rapport d'une commission de l'Academie de Médecine.) Accompagné de 3 planches, et de 32 figures intercalées dans le texte. pp. 344. Paris, 1847.

A Treatise on Strictures of the Urethra, by VICTOR PERREVE, &c.

Maladies des Voies Urinaires et des Organes de la Génération, par le Docteur Dubouchet. Dixiéme edition. Paris, 1851. pp. 396. *Diseases of Urinary Passages, and of the Organs of Generation*, &c.

Urinary Deposits, their Diagnosis, Pathology and Therapeutical Indications. By Golding Bird, A. M., M. D., F. R. S., F. L. S., &c., &c. pp. 428. London, 1851.

On Stricture of the Urethra and Fistula in Perineo. By James Syme, F. R. S. E., Professor of Clin. Surgery in the University of Edinburgh, &c., &c. Edinburgh, 1849. 8vo., pp. 72.

On Stricture of the Urethra, its Pathology and Treatment; Comprising Observations on the Curative Powers of the Potasse Fusa in that Disease; with cases. By Robert Wade, F. R. C. S., Senior Surgeon to the Westminster General Dispensary, &c., &c. 2d edition, greatly enlarged. London, 1849. 8vo., pp. 247.

A Treatise on the Cure of Stricture of the Urethra, with Practical Observations on the Treatment of Spermatorrhœa by Cauterization. By F. B. Courtenay, M. R. C. S., E. London, 1851. pp. 121.

Practical Observations on the Treatment of Stricture of the Urethra and Fistula in Perineo, &c., &c. By John Lizars, late Prof. of Surgery to the Royal College of Surgeons, and Senior Operative Surgeon to the Royal Infirmary of Edinburgh. Edinburgh, 1851. pp. 91, with plates.

Pathological and Practical Observations on Strictures and some other Diseases of the Urinary Organs. By Francis Rynd, A. M., M. R., I. A., Surgeon to the Meath Hospital and County of Dublin Infirmary, &c., &c. London, 1849. 8vo., pp. 196.

[*Continued from Vol. 7, p. 377.*]

In resuming our remarks on the diseases of the urinary organs, of which the treatise of Prof. Gross formed the basis, we shall not dwell upon his observations under the head of "Urinary Deposits," as we believe he lays no claim to originality on the subject.

Next in order, we come to the consideration of *Urinary Calculi*, their nature, causes and different methods of treatment. After quoting the statistics of 5,376 cases, mentioned by Civiale, in his Treatise on Calculous affections, to show the frequency of the

disease among children, (2,416 children,) he observes: "Children are more subject to this disease in certain districts than in others, and the same is true in regard to adults. In the United States, a larger number of children are affected with this disorder, in Kentucky, Ohio, Tennessee and Alabama, than in any other region; Pennsylvania, Virginia, Maryland, the two Carolinas, Georgia, Florida, Louisiana and Arkansas, also furnish a considerable number of cases. The inhabitants of Missouri, Iowa, Wisconsin, Michigan, Indiana, New-York and New-Jersey, are comparatively exempt; and in the New-England states generally, a case of calculous of the bladder is so rare as to excite the surprise of the observer. In Canada and the other British Provinces of North America, the disorder is also very unfrequent; at all events, none of the surgeons of these regions have acquired much reputation as lithotomists, and but few cases of stone are brought from thence into this country. The same remarks are applicable to Texas, Mexico and California, as I have assured myself by repeated inquiries from respectable and intelligent practitioners in those territories." Now, we have an impression, that Dr. Robert Nelson, who fled from Montreal to this city, some few years since, in consequence of the political disturbances in Canada, claimed to have performed lithotomy in upwards of 60 cases. Dr. John C. Warren, of Boston, (Report of the Committee on Surgery of the American Medical Association,) has operated upon 30 cases; and in the American Journal of the Medical Sciences for July, 1849, Dr. J. Mason Warren has reported 8 cases of stone in the bladder, which, from the dates given, must have come under his care in two years. The fact, that so many cases should have occurred in the practice of a single surgeon of Boston, in so short a period as two years, will doubtless excite the alarm of those who, from the perusal of Dr. Willis' article on calculus, in Costello's *Cyclopædia of Practical Surgery*, (particularly that part communicated to Dr. W. by Dr. J. B. Flint, of Louisville, p. 566,) had formed an exalted opinion of the temperance of the Bostonians, a city where, according to Dr. Flint, "at present (about 1839) no one drinks punch;" and they will naturally conclude that the inhabitants have resumed the use of that villainous compound of lemon-juice, rum and sugar, sometimes called *punch*, and which, Dr. Flint says, was the standard drink with all classes, and on all occasions, among the Bostonians, some fifty years ago, and to the (supposed) discontinuance of

which beverage, Dr. F. fondly ascribed their happy exemption from stone. In corroboration of Prof. G.'s assertion, that children are more subject to the disease in certain districts than in others, we may mention, that of 21,000 admissions in seven years, at the Hospital des Enfans, in Paris, the average number of cases was less than 4 per annum; and at the St. Marylebone workhouse; in London, where, for twenty years, the average admission was from 401 to 500 in the year, not one case occurred. "Colored persons," says Prof. G., "appear to be remarkably exempt from calculous complaints. Whether this is the case in all countries where the negro resides, I am not informed, but it is certain that the circumstance obtains in an eminent degree in the black population of the Southwest. During a residence of ten years in Kentucky, I do not recollect to have met with a solitary example of gravel or stone in a colored person. My impression is, that Dr. Dudley, in his large calculous practice, has never cut more than two or three individuals of this description. The circumstance is the more suprising, when it is remembered that the colored people of that region are constantly exposed to hard labor, and that their fare is often of the coarsest character."

The report of the results of 15 operations for lithotomy, by Dr. P. C. Spencer, of Petersburgh, Virginia, (*Amer. Jour. of Med. Sciences*, July, 1850, p. 103,) would lead us to receive, with some qualification, the remarks of Prof, G. on the exemption of the negroes of the southwest, for of Dr. Spencer's 15 cases, 6 were blacks. In his observations upon the influence of climate in the formation of urinary concretions, we find the following statement, which certainly is not confirmed by the report of those who have practiced in India. "In the East Indies, stone is comparatively unusual, though not so much so as was formerly imagined."

Now Mr. F. H. Brett, in his *Practical Essay on some of the Principal Surgical Diseases of India*, published at Calcutta, 1840, states, that calculi are very frequent among the natives of India; and that the late Mr. Barnard cut about 40 at the city of Benares, and that he himself had cut 4 in one day, all residing in the same neighborhood. In all, he had attended upwards of 100 patients affected with stone, during his attachment to the Bengal Medical Service. From what has been already stated, it is evident that we are as yet ignorant of the full extent of the influence of climate or food in the formation of calculi; and, as Prof. G. very pertinently remarks, "Much of what has been advanced is

wholly conjectural, and, therefore, scarcely worthy of serious attention. Patient and multiplied observations in different parts of the world, are alone competent to furnish us with any real and substantial light; for these we must wait, before coming to any positive conclusion."

The section on the "*Physical and Chemical Properties*" of stone, is illustrated with 11 wood cuts, taken from the author's treatise on Pathological Anatomy. After alluding to the names of those who have distinguished themselves by their researches in this respect, such as Scheele, Bergmann, Wollaston, Brande, Marcet, Fourcroy, Prout, Berzelius, Henry, Scharling, Taylor and Bird, he makes honorable mention of the labors of Prof. Peter, of Kentucky, who analysed eighty-one calculi contained in the museum of the medical department of Transylvania University. We shall only advert to one of the species of urinary concretion, which, as Prof. G. states, "is very rare." Out of the specimens which Dr. Peter examined, he found but 2 containing cystine. Dr. J. Mason Warren has reported, in the *Amer. Jour. of Med. Sciences* for July, 1849, a case of cystic oxide calculus, which he successfully removed by lithotrity; and in commenting on the rarity of this variety, he notices the fact, that at the time of the publication of his work on calculi, in 1840, (1838 is more correct,) M. Civiale had met with but 4 cases of it; (Oct. 19, 1851, M. C. informed us that he had *now* met with 8,) and that in the Hunterian Museum, out of 649 calculi, there are but 3 of the cystic oxide. Dr. Prout remarks, that of this rare form, 4 out of 7 museums contain no specimens; and that in St. Bartholomew's, Guy's and the Manchester Hospital, there are only 5. Dr. Golding Bird, (*Urinary Deposits*, 3d Lond. Ed. p. 186,) observes, that in a well remarked case, which fell under the care of Mr. Luke, at the Lond. Hospital, extensive disorganization of the kidneys co-existed, with a cystine calculus.

Symptoms.—Prof. G. gives us an excellent summary of the symptoms of stone in the bladder, but the following quotation, if Sir Benjamin Brodie's observations be true, should have been somewhat modified. "The pain," says Prof. G., "is also greater where the calculous affection is complicated with disease of the kidneys, ureter, prostate gland, urethra, testis, anus or rectum. Now Sir Benjamin informs us, that an enlargement of the *prostate gland* sometimes produces a considerable abatement of the symptoms of stone, a fact which he thus explained:—The

more urgent symptoms caused by a calculus, arise from its coming in contact with the internal orifice of the urethra; but when the prostate is enlarged, so as to form a tumor projecting into the bladder, this is in a great measure guarded against, as the stone becomes lodged, as it were, in the hollow behind the tumor, and is thus prevented from falling down on the neck of the bladder. However, in cases of enlargement with ulceration of the prostate, as in three instances which came under his observation, Sir Benjamin remarks, that the sufferings of the patients are greater than he had ever before witnessed "in persons laboring under the same, or, I might almost say, under any other disease." (*Op. Cit.* p. 138.)

Sounding.—After noticing the fact that some lithotomists prefer the common silver catheter to the solid steel sound, on the ground that it is more convenient when it is necessary to inject the bladder, or draw off the urine, Prof. G. observes, that this advantage is not compensated by the disadvantages of the more obscure noise and sensation, which such an instrument yields from its collision with the calculus. "The gum-elastic catheter," he says, "is unworthy of reliance, and should never be used by any one who has a proper respect for his own credit, or for the welfare of his patient." This, certainly, seems rather strong language to apply to a proceeding which has the decided approbation and sanction of so distinguished a surgeon and so experienced a lithotomist as Sir Benjamin Brodie.

"In some cases," says Sir Benjamin, "a calculus which has not been discovered by means of the sound, is at once detected by means of the elastic gum catheter." This is an observation made by Sir Everard Howe, the correctness of which I have had frequent opportunities of verifying. "Judging merely from the texture of the gum catheter, I should never have believed it capable of affording such certain evidence of a foreign body in the bladder as I know that it does from experience." (*Op. Cit.* p. 144.)

In the operation of sounding, Prof. G. directs the surgeon to take his position on the left side of the patient, as in catheterism. The objections to this position we have already noticed, whilst speaking of the latter operation. The authority of M. Civiale is also against this position. In his *Traité de l'Affection Calculeuse*, p. 469, he thus remarks:—"Il est plus commode pour le chirurgien de sa placer à la droite du malade; la main qui tieut la sonde, etaut alors dans une position naturelle, est mieux à même d'appré-

cier et les difficultés qui peuvent se présenter dans l'introduction de l'instrument, et les dispositions anormales susceptibles de nuire à la précision des donies qu'il recherche." Prof. G., in adverting to the dangers of this operation, mentions a case which occurred to himself, and which nearly proved fatal, though it was performed "with all possible gentleness." In his remarks under this head, he notices the fatal cases related by Sanson, Civiale, Mr. Fletcher, Mr. Crosse and Prof. Horner. In vesical auscultation, he is not disposed to place much confidence. "I should hardly feel at liberty to cut into my patient's bladder, if I had no better or more satisfactory evidence of the existence of the stone than what was derived from auscultation, whether executed in the ordinary way, or as suggested by Ashmead, or as practiced by Velpeau and other surgeons. M. Civiale, (*Op. Cit.* p. 475,) seems also disposed to place very little reliance on the aid to be derived from these means, or "ces innovations," as he calls them, "dont aucune n'a été adoptie et ne mérite de l'être." Prof. G. observes, that by sounding, it is usually not very difficult to form a tolerably correct idea of the *volume* of a stone; and Sir Benjamin Brodie remarks, that, though we cannot actually measure or determine, accurately, the size of a stone, we may, nevertheless, form some notion on the subject, which will not be far from the truth. M. Civiale, on the other hand, (*Traité Prat. et Hist. de la Lithotritie*, p. 87,) states, that in cases of "*racornissement*" of the bladder, one, or even several small stones, may appear to be much larger than they really are. Cases of this kind, he observes, he has frequently met with, and they have occurred to other surgoons. In these patients the bladder contains but a small quantity of urine, and if we inject it, the fluid is instantaneously repulsed. In sounding these cases, the thickened and hardened walls of the bladder rest upon the stone, which can be neither circumscribed nor isolated; and in almost every instance it is supposed to be of a magnitude which it does not possess. Roux performed lithotomy in a case of this kind, and Civiale states that he himself resorted to the same operation on account of the supposed size of the stone. In his *Traité de l'Affection Calculeuse*, p. 489, he records a case in which Dupuytren performed the high operation, the lateral method being contraindicated, in the opinion of Dupuytren and his assistants, by the dimensions of the calculus. The bladder having been opened above the pubes, after 20 minutes search, he extracted a stone,

the largest diameter of which did not exceed 18 lines, its smallest being only 7 or 8 lines. Civiale also states, that since the above operation was performed, lithotomy has been practiced at the same hospital, which was expected to be attended with many difficulties, on account of the supposed volume of the stone, but that it itself escaped by an opening which had been made unnecessarily large. From the facts above related, we should be inclined to feel some misgivings about Sir Benjamin Brodie's rule, as applicable in all cases, for obtaining a more precise knowledge of the size of a stone. This rule is as follows :—"Measure the calculus, by causing the convex part of the sound to traverse its upper surface from one extremity of it to the other. When the bladder is full of urine, strike it with the sound, or with the end of the gum catheter. Observe what quantity of force is necessary to push it out of the situation in which it lies; and, accordingly as it is displaced easily or with difficulty, so you may form an estimate of its weight and magnitude." If M. Civiale would imply that *all* cases in which the bladder is affected with "*racornissement*," this organ is capable of containing but a small quantity of urine, he is mistaken ; as in cases of this kind, Thibaut has drawn off more than two quarts of urine ; and the instances recorded by Rodolphe Zuinger, Littre and Le Clerc, are opposed to such an assertion. (Vid. *Traité de la Cystotomie sus-pubienne*, par M. Belmas, p. 60.)

Errors of Sounding.—After adverting to the numerous cases upon record, where patients have been subjected to lithotomy, even by such men as Cheselden, Dupuytren, Roux, Crosse, &c., &c., and no calculus has been found, he relates two instances of the kind with which he is acquainted. The circumstances which may lead to the commission of the error are chiefly pointed out and minutely detailed. As illustrating the fact, on the other hand, that a stone may be present and yet not be detected by the sound, a failure which, as he observes, has occasionally occurred "to men of the most consummate dexterity," he mentions the case of a Capt. Harding, of Philadelphia, in whom Sir Benjamin Brodie, after a thorough exploration of the bladder, failed in detecting the stone, which was promptly done by Dr. Physick, after the captain's return to America. This stone, "of considerable size," was successfully removed by the lateral operation. The numerous errors of this kind, collected by Civiale, in his *Traité de l'Affection Calculeuse*, pp. 477, 78, show that when they occur,

as in the instances recorded by Cheselden, Pelletan, Verzascha, Benevoli, Duret, Riviére, Marcellus, Donatus, Chesneau, Valentin, Riolan, Morgagni, Cavillard, Tolet, Colot, Deschamps, Chopart, &c., &c., mistakes may happen even in the hands of the most experienced surgeons. It certainly would seem to be the part of discretion, if after carefully searching, we find no stone, to imitate the example of Van Swieten, (commentaries,) who says, *nunquam pronuntiabat calculum non adesse, sed simpliciter affirmabat se non invenisse calculum.*

In his remarks upon the operation of sounding, we are surprised to find that Prof. G. makes no allusion to the use of the lithotrity forceps, the superiority of which instrument, for detecting a stone and measuring its size, is so strongly maintained by Civiale. (*Op. Cit.* p. 495.) In his *Traitê Pratique et Historique de la Lithotritie*, p. 96, he relates a case in which Amussat, Recamier, Roux and Breschet failed, by the ordinary means, to detect the stone, but which was readily accomplished by the lithotrity forceps. He refers, also, to another case at the Hospital du Midi, in which Ricord met with the same results. Civiale admits that these "explorations nouvelles" are almost always productive of more pain than the ordinary means, and sometimes are followed by inflammatory accidents, on which account they should not be resorted to on every occasion, but only when "elles sont absolument necessaires." Mr. Skey, in his recent work on *Operative Surgery*, p. 529, has recorded a case which, in the end, proved fatal. He observes:—"I sounded a man for stone. The stone was very large, and was got within the blades of the lithotrity forceps with difficulty, but I made no attempt to break it; at the end of a fortnight I repeated the examination with great care. This was followed by pain in the bladder, intermittent fever, and he died in two months of diseased kidney."

Under the head of "*Pathological Effects*" of stone, Prof. G. notices those, sometimes, produced by *spontaneous fracture.* The serious consequences which occasionally occur from this circumstance, are strikingly exemplified in the instance which he quotes from Liston's *Elements of Surgery.* From the facts recorded, both by ancient and modern writers on Surgery, there can be no doubt, however, that this accident sometimes leads to a perfect cure of the patient, and, as remarked by Deschamps, (*Traité de la Taille*, vol. 1, p. 351,) "beaucoup de calculeux, surtout parmi les femmes, ont été débarrassès, sans avoir pris aucun specifique, et

par les efforts seuls de la nature, non seulement, d'une quantité, prodigieuse de pierres, mais encore de pierres d'un volume considerable." In the *Transactions of the Royal Society of London* for 1731, Dr. Laurence Heister gives the history of a patient who voided fragments, which at length amounted to more than 200, after which the discharge subsided, and the patient was restored to health. A similar case, together with two others, in which the result was never known, came under the care of Sir Benjamin Brodie, and are noticed in his *Lectures on the Diseases of the Urinary Organs*, pp. 140–41. Besides the cases of spontaneous fracture recorded by Dr. Prout, Mr. Crosse, Velpeau and Civiale, among the moderns, we may also observe that they have been described by Tulpius, (Lib. 4, cap. 37, p. 333;) Detharding, (*Collect. des Thes. de Haller*, tom. 4, p. 355;) Geoffroy, (*Mem. de l'Acad. des Sciences de Paris*, 1739;) Robert Whytt, (*Essays of the Med. Soc. of Ed.* vol. 6, 163;) Morand, (*Mem. de l'Acad. des Sciences de Paris*, 1741;) Deschamps, (*Traité de la Taille*, tom. 1, p. 343,) and by Borrich and Rousseau. It is a curious fact, that most of these patients, at the time of discharging the fragments, were under the influence of specific treatment; and as this forms the subject, next in order, discussed by Prof. G., we shall dwell upon it for a moment. He observes, that by appropriate and well directed treatment, a concretion may become a comparatively harmless tenant of the bladder, and a state of torture be converted into one of elysium. This fact has led to a belief, which he thinks not altogether unfounded, that urinary concretions are sometimes dissolved in the bladder, and voided with the urine. The phosphatic calculi are most easily affected by medicated injections, and nitric acid (2 drops to the ounce of water) the best solvent.

He remarks that he has no experience with this mode of treating stone, and supposes few surgeons in this country have, as most of the patients are from a distance, and anxious to return home as soon as possible.

Lithotripsy.—Professor G. remarks, that to Civiale, beyond doubt, are mankind indebted for the invention of an operation, which threatened at one time to supersede lithotomy, and struck terror into the minds of the knives-men. He is not of those who look upon him as one "on whose birth the genius of good luck has waited, and for whom the bowls always run aright," (see *Brit. and For. Med. Rev.*, October, 1841, p. 414,) but considers the in-

vention as the result mainly of his own labors and ingenuity. "Mankind," says Professor G., "are not long, at least in modern times, in detecting and rewarding merit. Civiale has already outlived the persecutions of his enemies, and he now enjoys the enviable reputation of being the first lithotriptist in the world."

Twenty-seven years have now passed since Civiale performed his first successful operation, and though, to use his own language, "les chirurgiens nationaux et étrangers ont eu la facilité d'assister à mes operations," especially since 1829, the period when a special ward in a hospital (the Necker) was devoted to this operation, lithotripsy has, for some cause or other, been less generally adopted out of Paris than humanity at least would seem to have required. Some five years after Civiale's first operation in Paris, lithotrity was performed at the Westminster Hospital, London, (July, 1829,) about which period Costello was laboring to make known the advantages of the new method in that city. In Dr. Gibson's *Institutes of Surgery*, (ed. of 1845, vol. ii. p. 270,) we find an extract from a letter "lately received" from Mr. Crosse, the well-known lithotomist, of Norwich, England. In this letter he states, that "the use of lithotripsy, as a substitute for lithotomy, is rather fading here. We hear less and less of the practice," &c., &c. The following extract, also, from the *Brit. and For. Med. Chir. Rev.* for January, 1848, shows, even at this late period, a state of things certainly not very creditable to British surgery. "We have observed," says the reviewer, "in the books and journals of the day, in the lectures of practical men, in the wards of our hospitals, and the conversation of our friends, what we consider to be proofs that lithotrity has not yet met with a just appreciation on this side the channel—that the use of instruments which experience has shown to be imperfect or dangerous, is still persisted in by many—that surgeons do not prepare themselves for operating on the living, by acquiring the requisite manual dexterity by practice on the dead, and, consequently, that very often the method is blamed for unfortunate results, of which the operator alone is guilty; and lastly, that preparatory and after-treatment are not attended to with sufficient care."

Can American surgery boast of its superiority in this respect over that of Great Britain? We sincerely believe that the remarks of the writer just quoted, severe as they are, would justly apply, with but some few exceptions, to the majority of American surgeons.

"In this country," says Professor G., "lithotripsy is still in its infancy; in fact, it can hardly be said to have received fair play from the hands of the lithotomists. Dr. Dudley, who has operated more frequently for stone than any surgeon in America, has never, I believe, employed lithotripsy; and the same is true of some of our other practitioners. Those who have busied themselves most with this operation in this country, are Dr. Randolph, Dr. Gibson, Dr. Pancoast, of Philadelphia, and Dr. N. R. Smith, of Baltimore; the first of whom, unfortunately, died too soon for the cause of surgery, which he was so nobly engaged in cultivating. Many other surgeons have occasionally resorted to it, but comparatively few have made it the subject of their special study and practice. The operation was first performed in the United States by Dr. Depeyre, of New-York." *

We have strong grounds for believing that British surgeons are now beginning to feel that it is their duty to resort more frequently to a method which, instead of a mortality of 1 in 5 19-50, (see *Brit. & For. Med. Chir. Rev.*, for January, 1848,) the result of *British lithotomy* has, in the hands of Civiale, been followed by death but once in 40 13-14 cases. The reviewer, to whom we have just alluded, observes, that their experience, as far as numbers go, contrasts very unfavorably with that of Civiale, as in 33 cases 5 died, a result which, according to his own admission, is due, not to the method, but to the want of skill on the part of the operator. That lithotrity is now more commonly performed in Great Britain than it has been, we infer from the fact, that a London surgeon, in a recently published work on operative surgery, (Skey's,) declares that *lithotrity* is the rule, and *lithotomy* the exception; and from the proceedings of the Path. Society of London, reported in the *Lond. Med. Times* for December, 1850, Mr. Charles Hawkins, (who is the assistant of Sir Benj. Brodie,) remarked that he had seen lithotrity performed several hundred times, from which we infer that it is a favorite proceeding with Sir Benjamin. This operation we have also seen performed by Mr. Stanley, with a skill unsurpassed even by Civiale himself.

The merits of Jacobson's lithotriptor, Professor G. considers equal, if not superior, to that of Heurteloup and Weiss. A wood cut is given of the latter, with the rack and pinion modification of Professor Fergusson, an instrument now much used even by Civiale,

* N. Y. Med. Journ., Feb., 1851.

especially in those cases where the stone is of large size. Jacobson's lithotriptor, we believe, has been more employed in this than any other country. In France and Great Britain we have never seen it used. Among the favorable circumstances which this operation demands, Professor G. observes, "there must be no stricture of the urethra; enlargement of the prostate; sacculation, ulceration, hypertrophy or permanent contraction of the bladder, and no disease of the ureters and kidneys. Even an excess of morbid sensibility of the urinary passages is incompatible with the operation; the operation is inadmissible where there are a number of calculi; age constitutes no valid objection to the operation. If the general health is good, if there is no organic disease of the urinary apparatus, and if the manipulative processes are conducted with the requisite care and skill, it does not matter how old or how young the patient may be; he will have a reasonable chance of recovery."

Strictures of the urethra undoubtedly add greatly to the difficulties of this operation; but these obstacles may be overcome, and lithotrity successfully performed, as proved by the cases related by M. Civiale, in his *Traité de la Lithotritie*, p. 150. The same observations apply to enlargement of the prostate. (*Op. Cit.* pp. 151. 163.) On this subject, also, we may remark that Mr. John Adams, in his recently published work on the *Diseases of the Prostate Gland*, (London, 1851,) proposes to obviate the inconvenience arising from hypertrophy of the prostate, by turning the patient on his belly, and seizing the stone or fragments of stone with the lithotrite in this position, so as still further to comminute it, when, by repeated washings, its escape may be facilitated, (p. 84.)

Chloroform, as in the cases reported by Dr. J. Mason Warren, (*Amer. Journal of Med. Sience*, July, 1849, p. 47,) may destroy, in many instances, that excess of morbid sensibility of the urinary passages which Prof. G. regards as incompatible with the operation. The use of this agent, Prof. G. thinks, should be avoided, except in cases of children, as, in his opinion, it is desirable that the patient's mind should be perfectly clear in order to inform the surgeon if he has seized the mucous membrane of the bladder. In another place, whilst noticing the objections urged against Jacobson's lithotriptor, among which especially is its liability to pinch the coats of the bladder, he states that this is not an easy matter, for a skilful surgeon, in any case. In reply to a question recently proposed (Oct. 19, 185[illegible]) by the writer to Civiale, in per-

son, he informed us that he did not often resort to the use of chloroform in lithotrity, as, in his opinion, in the majority of cases so slight is the pain that it is not required, but he admitted that he sometimes did employ it, as in the cases where it is so strongly recommended by Dr. J. M. Warren. M. Guersent informed us, on the other hand, that he almost always places his patients under the influence of this agent, when about to perform lithotrity. From the *London Lancet*, of Aug., 1851, (Am. Ed.,) we learn that Mr. Cushing, than whom but few more judicious surgeons can be found, occasionally, at least, makes use of chloroform, as in the case reported, when he operated on a boy fourteen years of age. As to the inadmissibility of the operation, when there are a number of calculi, we will only observe that both Leroy and Civiale report several cases in which they successfully removed a number of calculi, Civiale, indeed, having crushed forty at a single sitting. The practicability of performing lithotrity in children has long since been satisfactorily established. That it is the *best* operation on young children, we think remains yet to be proved. M. Guersent recently informed us that he frequently performs it on children, and that he operated successfully on one aged only eighteen months. Civiale observed, that the youngest on whom he had operated was two years of age. If, however, the statistics of other lithotomists exhibited a mortality like that which has followed lithotomy in the hands of M. Guersent at the Hospital des Enfans, (9 deaths in 60 cases,) it would seem the duty of the surgeon to perform lithotrity on children more frequently than they are in the habit of doing. We believe, however, that *lithotomy* is in these cases generally followed by more successful results than has attended the operation of M. Guersent. That the above is the true ratio of mortality at the Hospital des Enfans, we are informed by M. Guersent himself.

Prof. G. does not allude to the extent of his own experience in lithotrity, but we have reason to think that it has been limited. If, therefore, he has failed to present this subject in a manner complete and satisfactory as has been done by Amussat, Segalas, Leroy, Civiale, Costello and Heurteloup, &c., it surely need not surprise us. Whilst much may be found in his observations on lithotrity, of great value to those who are about to attempt this operation, it cannot be denied that much has been omitted, which is of essential importance to be known by those who expect to resort very frequently to this proceeding. Indeed, Prof. G. very

candidly observes, "To such of my readers as are desirous of being enlightened upon the subject, the recent work of Dr. Civiale, of Paris, entitled "*Traité Pratique et Historique de la Lithotritie*," published in 1847, will afford ample information, derived, as it is, from his large personal experience, and his abundant reading."

Lithotomy.—Referring the reader desirous of learning the various methods practiced by different surgeons in different ages and countries, to the elaborate work of Deschamps, Prof. G. remarks, that he proposes to give merely an account of a few of the more important operations, as they are performed by the most eminent surgeons of the present day, viz., the lateral, bilateral, quadrilateral, supra-pubic, and recto-vesical. Prof. G. considers it important to subject every patient about to undergo lithotomy to a *certain* amount of preliminary treatment. Too much preparation, however, should be avoided; for it is as bad as too little—indeed, if any thing, worse. To starve and purge a patient to death before an operation, is as bad as to kill him after it. Mr. F. H. Brett, in his *Practical Essay on some of the Principal Surgical Diseases of India*, observes, that his last sixty-eight cases, *all* did well, and he is inclined to attribute his extraordinary success, either to the climate, or to the fact that he operated without any preparatory treatment. The unfavorable influence which follows the feverish anxiety and irritation so often arising during the preparatory treatment, has been most forcibly described by Mr. Edwin Lee, in his Prize Essay. "No surgeon," says Prof. G., "having a proper regard for his own character and the dignity of the profession, would be likely to operate in case the patient is affected with organic disease of the lungs, or of any other important viscera," &c., &c.

In Dupuytren's "*Maniere Nouvelle de prat. l'operation de la Pierre*," par Sanson and Begin, is related a case, where the patient exhibited every indication of tubercular disease of the lungs, as dullness under the clavicle, an almost constant hacking cough, all of which disappeared, shortly after the removal of the stone; and Belmas (*Traitè de la cystotomie. Lus. Pub.* p. 299) remarks, that the practice of Dr. Souberbielle presents us with abundant proof that the operation "peut arêtee les progres de ces affections et guerri les malades." We have had occasion, (*N. Y. Jour.* for July, 1851,) to advert to the propriety of amputating, in certain cases of this kind, and the facts which we then brought forward, as well as those to which we have just allu-

ded, conclusively prove, in our opinion, that tubercular disease of the lungs, unless far advanced, is not always to be regarded as a contraindication, either to lithotomy or amputation.

Lateral Operation.—An excellent account of this, his favorite method, is given by Prof. G., and he joins with those who advocate an incision of the prostate, "limited as it can be consistently with the safe and easy extraction of the foreign body." In his own operations (24, all successful) he has strictly adhered to this rule, and says he has had no occasion to regret it. We find in favor of a limited division of side of the prostate, the names of Lecat, Chaussier, Flawbert, Delpech, Scarpa, Dupuytren, Brodie, Stanley, Martineau, Key, Liston, Fergusson. For complete division, Cheselden, Garengeot, Morand, Moreau, Le Dran, Desault, John Bell, Langenbeck, Klein, Samuel Cooper, Sir Astley Cooper, Malgaigne, &c.

Accidents during and after the operation.—Hemorrhage. The subject of primitive hemorrhage, or that which occurs during the operation, is fully discussed by Prof. G., but on that of secondary hemorrhage he is very brief, nor do we think the facts which we shall presently produce, warrant the following remarks: "The older lithotomists speak of secondary hemorrhage taking place several days, and even weeks, after the operation. When it is recollected what violence they employed in extracting the stone, we need not be surprised at the occurrence, which is fortunately extremely rare, in the present improved mode of proceeding." Now when we find this accident occurring in the hands of such men as Mr. Earl, Sir Benjamin Brodie, Messrs. Travers, Greene, South, Fergusson, &c., we have every reason to believe that it could not have been from any undue violence employed, nor can we credit for a moment that such operators would not give their patients all the benefits of "the present improved mode of proceeding." Those who wish to examine this matter more fully may, find it treated in the following works:

Bertrandi, *Traité des Operations*, p. 127; Tolet, *Traité de la Lithotomie*, p. 109; Collot, *Traité de l'operation de la Taille*, pp. 131, 132, 140. Le Dran. *Traité des Operations*, p. 322; Sir Benj. Brodie, *Lecture on Diseases of Urinary Organs*, p. 172; South's Chelius, vol. 3d, p. 335; Mr. Henry Smith, *Lond. Med. Times*, May, 1851, p. 532. Mr. Earle's case is described by Sir Benjamin Brodie; those of Mr. Travers and Greene, by Mr. South, and that of Mr. Fergusson by Mr. Henry Smith. We

may also add, that this matter has been most ably handled by Deschamps, in his *Traité de la Taille*, vol. 3, p. 358.

Phlebitis.—"A peculiar form of inflammation, named phlebitis, occasionally occurs after this operation. It is most frequently met with in elderly subjects, affected with an unusual development of the veins of the neck of the bladder, and the prostate gland. The disease usually arises within the first four or five days, and soon spreads through the neighboring cellular tissue, assuming a diffused erysipelatous character, and terminating, if the patient survive sufficiently long, in purulent infiltration. The French surgeons consider phlebitis as a very common cause of death after this operation; a view which has not, I believe, been confirmed by English and American observers."

In the *Lond. Lancet*, for January, (Am. ed.) 1851, p. 71, Mr. Wm. Pirrie, Regius Prof. of Surgery at Marischal College, Aberdeen, has reported a case where he performed lithotomy on a man, aged 63, "fat, cheerful and healthy looking," from whom he extracted two calculi "with great facility." The patient did well until the 13th day, when the *calf of the leg* was attacked with phlebitis. In the last volume of the same journal, for 1850, Mr. Bransby Cooper has detailed another case, in which infiltration of urine occurred in the perineum four days after the operation, and which gave rise to sloughing of the scrotum. Sixteen days after the operation, phlebitis invaded both extremities, and proved speedily fatal. In this, as in Mr. Pirrie's case, the part first attacked was the calf of the leg. Mr. P. observes, that he had never before seen phlebitis in such a situation after lithotomy, especially when, as in his case, the wound and surrounding parts remained healthy. In the *Bull. Gen. de Therapeutique*, for April, 1840, Civiale has an article on certain abscesses occurring in different parts of the body, during the progress of diseases of the urinary organs. He remarks, that these cases have escaped the attention of authors; but since his has been directed to them, he has met with numerous examples. All of his cases occurred in adults—four had strictures—during the treatment of which (one by cauterization, three by dilatation) the abscesses were developed. In the fifth case, there was serious disease about the neck of the bladder, and in several others there were urinary calculi, which had been broken down by lithotrity. In all, he observes, there seemed to be some considerable irritation or inflammation of the urethra or neck of the bladder, which apparently gave rise to the

distant affection. These abscesses, he states, are peculiarly liable to form in the extremities and large joints, and the condition of the system accompanying them is attended with much danger. He lost the first two patients which he treated. (See, also, *Traité Prat. sur les Mal. des Org. Gen. Urinaires*, p. 531.) M. Sedillot, in his *Treatise on Pyæmia, or Purulent Infection*, and Mr. Henry Lee, in his *Prize Essay on the Origin of Inflammation of the Veins*, and on the *Causes, Consequences and Treatment of Purulent Deposits*, agree, that the most common seat of the *muscular* abscess is the region of the calf of the leg, where, sometimes, though producing great pain, it may exhibit but little redness or swelling. Whether these abscesses, found in parts remote from the seat of operation, are the result of *purulent deposit* from the circulation, or the product of local inflammation, we believe is not yet fully settled. In favor of the former opinion, we have the names of Budd, Rayner, Hasse, Lebert, Magendie, Cruveilhier and Mr. Lee, whilst the views of M. Sedillot and Dr. Aran are opposed to this doctrine. Prof. G. advises an anti-phlogistic treatment in these cases, "conducted cautiously," however, "and with due regard to the constitution."

Mr. Lee objects to depletive treatment, and recommends quinine bark and opium, as was found of service in Dr. Pirrie's patient.

We pass over many of Professor G.'s observations on the accidents during and after the operation, simply observing, that under the heads of Sinking, Retention of Urine, Undue Inflammation of the Wound, Lesion of the Prostate Gland, Urinary Infiltration, Peritonitis, &c., &c., the reader will find much of interest and practical value.

Statistics.—This is a subject which, with the facts in our possession, we approach with much satisfaction. "It has been calculated," says Professor G., "that about one out of every five that are cut for stone by the lateral method, perishes; and this estimate, taking the general average result, is, perhaps, pretty near the truth. Considered, however, with reference to individual operators, it is incorrect. Thus, taking the results furnished by some of our own lithotomists, it will be found that they afford a much more gratifying picture. Dr. Dudley, for instance, is said to have lost only 5 cases out of 180 cut, up to the beginning of 1846;* Dr. Mettauer, of Virginia, 2 out of 73; Dr. John

* We believe he now numbers over 200 cases.

C. Warren, of Boston, 2 out of 30, of which three, however, were by the bilateral method; and Dr. Gibson, of Philadelphia, 6 out of upwards of 50. My own cases, amounting to 24, have all been successful. I invariably use the knife, while Dudley and Gibson employ the gorget. In the Pennsylvania Hospital, at Philadelphia, between 1752 and 1848, 83 cases of stone were cut by the lateral method, and, except in a few instances of very young children, by means of the gorget. Of this number, 72 were cured and 10 died—1 being set down as relieved."

The *British and Foreign Medical Review* for July, 1845, p. 57, in noticing Pancoast's Operative Surgery, observes: "We have seen some very queer-looking American lithotomy instruments, which have not greatly exalted our views of American lithotomy or American cutlery." (These remarks are excited by Pancoast's praise of Physick's modification of the gorget.) "Our Greens, our Listons and our Keys, our Weisses, our Loundys and our Simpsons, may look aghast when they read this." "Success," says the same writer, "is the grand criterion in surgery, but success can only be justly appreciated by statistical results." Again, in alluding to Dr. Prout's calculations, drawn from the returns of the Bristol, Leeds and Norwich Infirmaries, which gives a mortality of 1 in 5 19-50 cases, the reviewer continues: "This ratio is drawn from about 1,000 cases; and the further researches of Dr. Willis show that the truth is probably thus nearly approximated." Now, though the *amiable* writer just quoted may have seen some specimens of *American cutlery*, which have not greatly exalted his views of *American lithotomy*, we venture to predict that the following statistics, drawn from the practice of American surgeons, will cause *him* to look aghast as he reads them:

	Operations.	Deaths.		Operations.	Deaths.
Dr. Dudley,	180	5	Dr. J. R. Buton,	36	4
" Mettauer,	73	2	" N. R. Smith,	45	3
" J. C. Warren,	30	2	" Mott,	50	1
" Gibson,	50	6	Ohio Surgeons,*	72	6
" Gross,	24	0	Penn. Hospital,	63	10
" Goldsmith,	58	3			
" Geo. M'Clellan,	30 (9 high)	0	Total,	721	42

The ratio of mortality after lithotomy in France, we believe, is not far from 1 in 6. In England, as the reviewer admits, 1 in 5

* *Trans. of Ohio State Med. Society. Report of Committee on Statistics of Cale. Diseases in Ohio*, 1850.

19-50. In the United States we find, from the above statistics of well-known surgeons here, 1 in 17 1-6! Having dwelt at such length on the lateral operations, our limits compel us to pass over Professor Gross's observations on the bilateral, quadrilateral, supra-pubic and recto-vesical methods. The chapter on *foreign bodies in the bladder*, also, need not detain us, and we proceed at once to the *Diseases and Injuries of the Prostate Gland*, which he arranges under the following heads: 1. Wounds; 2. Inflammation; 3. Suppuration and Abscess; 4. Ulceration; 5. Hypertrophy; 6. Atrophy; 7. Scirrhus; 8. Encephaloid; 9. Colloid and Melanosis; 10. Tubercle; 11. Cystic disease; 12. Hemorrhage; 13. Calculi; 14. Phlebolites.

Hypertrophy of the Prostate.—"This," says Professor G., "is emphatically a disease of old age; while all the other organs of the body, almost without exception, experience a diminution of weight and bulk as man approaches the period of decrepitude, the gland in question alone manifests a tendency to transcend the limits assigned to it by nature. No observations that have yet been made afford a clue to this singular circumstance. The belief, I know, is very general even in the profession, that there is hardly a man of fifty who has not an enlarged prostate. My experience has supplied me with no facts in support of this opinion; the conclusion is too sweeping; the word 'old' is a relative one, and should be used in no other sense in reference to the present subject." A question arises here which is not one merely of idle curiosity, for if the enlargement in old people is not an *accidental disease*, but one of a series of *natural changes* which the system undergoes after the middle period of life, we must expect but little from treatment. This is the view taken by Sir Astley Cooper, Sir Benjamin Brodie, Mr. Lawrence and Civiale. Graefe and Portal maintained that the prostate gland, instead of increasing in size with years, became actually diminished. Mr. Guthrie, in his lectures on some of the more important points in surgery, delivered before the Medical Society of London, (*Lond. Lancet*, Am. Ed., July, 1851, p. 9,) observes, that "a great mistake had been previously committed, and, indeed, now continued, that an enlarged prostate is a very common disease of old men, and particularly of the part called its third lobe. In my lectures, delivered in 1830, I declared this error to be one of those which still existed in modern surgery. The point, I am happy to say, has of late been investigated by the surgeons of the Royal Naval

Hospital, Greenwich. Sir John Liddell, Dr. Beith, and, indeed, all of them assure me that, on the examination of the bodies of the old men who die there—and from two to three hundred, or more, die annually of old age—the enlargement of the prostate, and especially of its third lobe, is not commonly found in them; thus proving that the changes which do take place in these parts often admit of more relief from art than they were formerly capable of receiving." Professor G. though differing with Mr. Guthrie from the authorities above quoted, yet takes a more discouraging view of the treatment of senile hypertrophy, and, from his remarks, we should infer that he regards it as little under the control of medicine as the osseous depositions in the arteries of old men.

Mr. John Adams, (*Op. Cit.* p. 61,) describes an affection which consists essentially in an irritation of the prostatic part of the urethra, accompanied by a similar condition of the ducts and follicles of the gland. Among other symptoms there is a slight discharge of mucus from the urethra, so as just to moisten and discolor the linen. He calls this disease the irritable prostate gland. He also describes neuralgia of the prostate, cases of which are also related by Civiale, yet Prof. G. seems not to have recognised either of the above as distinct forms of disease. In the 83 pages, however, which he has devoted to the consideration of the affections of the prostate gland, we believe, with the exceptions just mentioned, he has included every thing of practical importance which can be said on the subject. Several original drawings are also given, which are of value in illustrating the various forms of prostatic disorder.

Diseases and Injuries of the Urethra.—Malformations and imperfections of the Urethra.—Prof. G. observes, that it does not fall within the scope or design of his treatise to present a full and detailed account of this subject, and he aims to furnish only an outline of the more important facts in their relation to the surgical pathology of this tube. He arranges these affections as follows: 1. Malformations of the terminal orifice; 2. Absence, contraction or obliteration of the urethra; 3. Duplicity of the canal; 4. Changes of form; 5. Deviations from the normal direction.

Hypospadias.—Three varieties of this he recognises, and he likewise notices the operation performed many years ago by Dr. Physick, also by Dr. Pancoast, in 1844, to remedy that form complicated with great shortening of the spongy substance of the urethra, accompanied with incurvation of the penis. This ope-

ration consisted in cutting out a V shaped piece of the cavernous bodies at their dorsal surface. In a case under his own care, he dissected off the integuments at the seat of the bend, and then made four horizontal incisions, at intervals of several lines, into the fibrous sheath of the cavernous bodies, in order to restore them to their normal length. This proceeding had the effect intended, but, in consequence of the difficulty of keeping the organ extended, there was a reproduction of the curve, within a very short period after the cicatrization of the parts.

A curious case came under our care a few years since, (see wood cut in *Amer. Journ. of Med. Sciences*, April, 1847,) in which we were obliged to dissect the penis out of the soft parts in which it was completely imbedded. The raw surface under the penis, thus exposed, was covered by flaps drawn from both sides and united in the median line. A leaden tube was then placed in the urethra, and the latter was retained in the finger of a small glove until the wounds had healed. The child died some six months afterwards from pneumonia, whereby we were prevented from performing any operation to overcome the hypospadias. The external appearance of the pubic region in this child resembled more that of the female than the male sex; and doubtless if the patient had lived to reach adult years, he would have passed for an hermaphrodite. Professor G. makes no allusion to this subject of hermaphroditism—a very valuable paper on which was published by Professor Theile, in Muller's Archives fur Anatomie, 1847, an abstract of which may be found in the *Brit. For. Med. Chir. Rev.* for January, 1848, p. 270. The examinations of Prof. Theile and Sœmmering, related by Prof. T., shed much light on some of the supposed cases of this kind, and corroborate the opinions of modern anatomists, that every variety of so-called hermaphroditism is referable to an abnormal condition either of the male or of the female organs of generation, existing singly, or but rarely conjointly, in the same individual. An instance of the latter has come under our observation—the particulars of which we hope at a future period to present to the profession.

Strictures of the Urethra.—Diagnosis.—Physical Exploration.—Prof. G. is disposed to attach but little importance to the impressions obtained by bougies tipped with wax, which Ducamp and Civiale think may be turned to great account in the treatment. The instrument which he usually employs for this purpose, is the common silver catheter, of moderate size, and a little conical at

the extremity. A tolerably correct idea of the nature, seat and extent of a stricture, he says, may sometimes be acquired by the application of the thumb and finger along the under surface of the penis. As the part corresponding to the obstruction is not only indurated, but contracted, he remarks, in such a case, it is almost as easy to determine the character of the affection by an external examination as by the use of the catheter or bougie. These remarks are chiefly applicable, of course, to strictures of the spongy portion of the canal; for, when the disease is situated far back, a more accurate and thorough exploration alone will suffice.

Causes of Stricture.—Prof. G. maintains, in opposition to Hunter, Abernethy, Sir E. Home, Desault, &c., that of the inflammatory causes, the most frequent is gonorrhœa, an opinion in which he coincides with Civiale.

"It has been supposed," says Prof. G., "that stimulating injections, employed too early in this disease, are capable of producing the affection; this is undoubtedly true, but I am satisfied that the occurrence is much less frequent than is generally imagined. The point is one of practical, and not of mere theoretical importance, inasmuch as it establishes the fact, that the disease is much more at fault than the remedies employed for its cure. In a word, it shows how mischievous a gonorrhœa may be, and how diligent the physician should be in his endeavors to remove it."

Mr. Rynd, in his *Practical Observations on Stricture*, denies the influence of gonorrhœa, but we think the majority of facts go to show that the long continued excitement in bad cases may give rise to a thickening and modification of the vital elasticity of the walls of the canal.

Treatment.—This consists of dilatation, compression, cauterization, incision and external division.

Dilatation.—"My conviction," says Prof. G., "founded upon ample experience, is, that the very best instrument for dilating a stricture is the common silver catheter, with a slightly conical point. I have employed this instrument now in the treatment of this affection for upwards of twenty years, and nothing could induce me to abandon it. It possesses all the requisites that such an instrument ought to have, viz., lightness, firmness and durability, and is incomparably superior, in every respect, to all the metallic, wax, gum-elastic, ivory and other bougies, that have ever been invented. In making this statement, I do not wish to be understood as saying that bougies are entirely worthless, or that they

ought never to be used. If I was to do this, I should certainly do injustice to my judgment, and assert what is contrary to the experience of some of the ablest and most enlightened surgeons of the age, both in this country and in Europe. My desire is merely to recommend, in strong and decided terms, an instrument which is capable, as a general rule, of fulfilling every indication presented in this disease, even in its worst forms, and which, I am satisfied, is much less appreciated than it deserves to be."

At the Hôpital Neckar, the instrument so much lauded by Prof. G. is seldom used, and to those desirous of perusing an equally laudatory strain on *bougies*, we would recommend the first volume of Civiale's *Traité Pratique sur les Maladies des Organes Genito-Urinaires*, p. 203, et suiv.

External Division, or Perineal Section. When Civiale's *Traité Pratique et Historique de la Lithotritie* appeared in 1847, the British medical press was shocked at the painful view which it afforded of the quarrels, jealousies and slandering of their Parisian brethren, and not a little did it exult in the assurance it felt of the very exalted tone of professional feeling existing in their own, when compared with that of the French capital. We doubt, however, whether any thing can be found among all the proceedings on that great arena for professional conflict, the Academy of Medicine, to surpass, if, indeed, to equal the bitter animosity, the unamiability of temper, the personal abuse, and low vituperations which for some months past have characterized the conduct of the opponents and advocates in Great Britain of the perineal section in the treatment of stricture. Indeed, as we had occasion to remark in the last number of this Journal, p. 375, Prof. Syme has actually challenged his London brethren to produce a case of stricture, which in his hand shall prove to be impermeable, and has offered to defray the expenses of all such patients to Edinburgh.*

"This plan of treating stricture," (external division,) observes Prof. G., "originally practised in the last century, has recently met with a strenuous advocate in Mr. Syme, Prof. of Clin. Surgery

* In consequence of the unpleasant results following the treatment of popliteal aneurism by pressure, in the unskilful hands of the London surgeons, the rage of those in Dublin is kindled, and they challenge the former to send their cases to Dublin, from which city they shall be returned cured. To quote the language of the *Lond. Med. Times*, "what with speculum challenges, and surgical challenges, we have of late got very pugnacious."

in the University of Edinburgh. In a short monograph on this disease, published in 1849, he has taken great pains to point out the advantage of this method, and has detailed a number of interesting cases, in which it was followed by prompt and permanent cures. Successful results, by the same procedure, had been previously obtained by J. L. Petit, Lavanier, Eckstrom, Arnott, Jameson and other surgeons. Nearly ten years ago I performed, with the kind assistance of Prof. Cobb, an operation of this kind upon a young man from the state of Illinois."

Although Prof. G. devotes but little more than two pages to this method of treating stricture, his remarks are full of interest, and well calculated to prevent the surgeon from rashly attempting an operation which he observes, of all in surgery is least to be coveted. The case in which he himself operated was one of impermeable stricture, the result of a wound in the perineum. Prof. Syme, as is well known, performs the operation *in those cases where an instrument can be pushed completely into the bladder.* We shall not soon forget the decided manner in which M. Civiale recently responded to a question which we proposed to him. "Do you ever, sir, perform Syme's operation in *permeable* stricture?" "*Jamais; jamais!*" In cases of *impermeable* stricture, however, he informed us he had often performed the perineal section, as was recommended and practiced by Bertrandi and Collot. It was long since observed by M. de la Motte, that "*la diversité des opinions ne doit jamais alienér les cœurs;*" and it is a still older saying, that "ingenuas didicisse fideleter artes emollit mores nec senit esse feros."

No one can read the work of Mr. Lizars, at the head of our ticle, without regretting that professional envy and zeal should have excited him to employ the scurrilous language which he applies to Prof. Syme. True, the course of the latter gentleman, for some time past, has not been calculated to earn many friends. It has been quite apparent that he is too much like those Eastern kings,

> "Who, to secure their reign,
> Would have their brothers, sons and daughters slain"

In his anxiety to *reign* sole dictator in all matters pertaining to surgery, he has disgusted every co-laborer in this noble field. With vanity and self-conceit, which know no bounds, his constant assumption of *priority* and *superiority* has mortified his friends, and armed his enemies with weapons of the keenest edge against himself.

But we have extended our remarks much further than we anticipated when we commenced, and our time and space warn us that we must bring them to a close. We have freely commented on many of the views of Professor G., and have had occasion to point out what we supposed to be deficiencies and imperfections in his work. Still, whoever will peruse the vast amount of valuable practical information it contains, and which we have been unable even to notice, will, we think, agree with us, that there is no work in the English language which can make any just pretensions to be its equal. Secure in the esteem and confidence of the profession in this country, at least, its distinguished author will doubtless receive their warmest congratulations that he has succeeded in producing a treatise so creditable to himself, and, as we humbly believe, to *American surgical literature.*

CRITICAL BIBLIOGRAPHICAL NOTICES.

ART. IX.—*Illustrations of Syphilitic Disease.* By PHILIP RICORD, D. M. P., etc. etc. *Translated by* THOMAS F. BETTON, M. D., etc. *With the addition of a History of Syphilis, and a complete Bibliography and Formulary of Remedies. Collected and arranged by* PAUL B. GODDARD, M. D., etc., etc. With fifty large quarto Plates, comprising 117 beautifully colored Illustrations. Philadelphia: A. Hart, (late Carey & Hart.) 1851. 4to. pp. 383.

The republication of M. Ricord's *Clinique Inconographique de l'Hôpital des Vénériens*, celebrated for its accuracy, under the title above given, cannot but be appreciated by the profession at large. There is a utility in illustrated works, executed with the accuracy which this is, that reaches far beyond mere verbal or written descriptions, and places the practitioner possessing them in a position nearly allied to that of the advanced clinical teacher.

The first seventy-three pages are occupied with the history and bibliography of syphilitic disease, by the translator; and the various formulæ used by M. Ricord, collected and arranged by the editor. The first is an elaborate history of venereal disease from the earliest period of time in which we have any record of it, to the present; while the second is a very complete list of the various publications which have appeared from 1495 to near the present time. In each of these papers there is displayed a learn-

ing and research alike commendable to Dr. Betton, and instructive to the reader, and we can justly say that these portions of the work have a value and merit which is not to be found in any other American publication within our knowledge. The formulary, collected and arranged by Dr. Goddard, adds much to the practical value of the work, as it contains the formulæ for all the preparations used by M. Ricord in the treatment of the many forms and complications of the disease in question.

In looking over the text and plates of this truly valuable volume, we observe that some changes have been made in the arrangement of the author, and that all that appears in the original edition does not appear in the American. This fault of omission (if it may be styled a fault) detracts but little from the practical value of the work, as a sufficient number of plates appear to supply the reader with good illustrations of the various forms and complications of this protean disease; for as we turn over the several pages and plates, we find the whole history, theoretical and practical, of the subject, treated in a masterly style; primary ulcers of every variety and kind; the various complications, with the accompanying constitutional affections; and last, though not least, the syphilides, each and all come in for their share of illustration and description, and that, too, in a manner which cannot fail to impress on the mind of the reader a thorough understanding of the subject.

It was our intention, but our want of space has prevented us from carrying it out in the present number, to give our readers a fuller and more extended and satisfactory notice of the contents of this volume. It is deserving of a place on the table of every practising physician; and those who have been instrumental in placing the costly work of M. Ricord within the reach of American physicians, at so moderate a price, are deserving of our warmest commendations. We are encouraged to believe that it will receive at the hands of the profession a liberal patronage.

Art. X.—*Surgical Anatomy.* By Joseph Maclice, Surgeon. With colored plates. Part 5th and last. Philadelphia: Blanchard & Lea. 1851.

We have here the completion of the work of Mr. Maclice, on Surgical Anatomy, a work which has no parallel in point of accuracy and cheapness in the English language. In the previous

numbers of this journal we have (as the successive numbers of this volume appeared) called attention to it with no ordinary feelings of satisfaction; and now that it is completed, we will only repeat what has been said in a previous number, that "to the physician as well as the surgeon, away from schools and the opportunity for dissections, this work cannot fail to prove of eminent usefulness."

ART. XI.—*Illustrated Manual of Operative Surgery and Surgical Anatomy.* By MM. CL. BERNARD, D. M. P., and C. H. HUETTE. Edited, with notes and additions, and adapted to the use of the American Medical Student, by W. H. VAN BUREN, M. D., Surgeon to Bellevue Hospital, etc., etc., and C. E. ISAACS, M. D., Demonstrator of Anatomy, College Physicians and Surgeons, New-York. Illustrated with steel Engravings, from drawings after nature, by M. J. Léveille. Designed to serve as a companion to the ordinary text-books on Surgery. New-York and London: H. Bailliere. 1851. Part 1. 8vo. pp. 84, with 26 engravings.

The *Illustrated Manual* of M. M. Bernard and Huette is decidedly the neatest volume, if the future parts are in keeping with the present, that has come to our knowledge. We have been accustomed to see issue from the French and English press, works of superior artistical finish; but truly can we say, that never have we seen one which so completely fills our eye in point of beauty of design and execution as this. In our admiration, however, we would not lose sight of the fact, that this work is designed as a complete and concise picture of the science and art of operative surgery, in its present advanced and perfected condition, in a portable form. It is intended as a text-book for students, to aid them by illustrations in acquiring accurate and clear ideas of the nature and design of the various operations in surgery, and as such will serve as a companion to any of the ordinary text-books on the practice and operations of surgery; but cannot take the place of the extensive and erudite works of Bougery and Jacob, Velpeau, Chelius or Prof. Pancoast. Intended, however, as it is, as an illustrated text-book for the student, we feel quite certain that it will prove a valuable guide for reference to the advanced practitioner, reminding him at a glance of the difficult points in relative anatomy, which are liable to be forgotten by one not accustomed to

oft-repeated dissections. The editors, in translating and Americanizing this manual, have rendered the profession signal service; and the publisher, we sincerely hope, will receive that substantial encouragement which so meritorious a publication should command.

ART. XII.—*Operative Surgery, based on Normal and Pathological Anatomy.* By J. F. MALGAIGNE, Prof. Agrégé de la Faculté de Médicine de Paris, etc., etc. *Translated from the French,* by FREDERICK BRITTAN, A. B., M. D., M. R. C. S. L. Illustrated by wood Engravings, from designs by DR. WESTMACOTT. Philadelphia: Blanchard & Lea. 1851. 8vo. pp. 565.

The above treatise of M. Malgaigne is an English translation of one of his most celebrated works; a work which has passed through five editions in the original, and has been translated into at least six continental languages. The two principal parts of *Médecine Opératoire,* which have been treated of with especial care, are surgical anatomy and operative manipulations, with the appreciations of the different methods applicable to the treatment of the disease in question. The work, we believe, was originally intended for students only; but to those who have kept pace with the onward progress of surgical literature within the last few years, it will be evident that it has fallen into the hands of the masters of the surgical art, and large drafts have been made upon it in the current literature of the day. If any evidence, other than that which the reputation of the author furnishes, were wanting to introduce the work to the American reader, the facts above stated are sufficient. We regard this work as one of the best manuals that can be placed in the hands of surgical students, desirous of becoming acquainted with all that relates to operative surgery.

ART. XIII.—*Lectures on Materia Medica and Therapeutics, delivered in the College of Physicians and Surgeons of the University of the State of New-York.* By JOHN B. BECK, M. D., late Professor of Materia Medica and Medical Jurisprudence. Prepared for the press by his friend, C. R. GILMAN, M. D., Professor of Obstetrics, etc,, in the College of Physicians and Surgeons. New-York: S. S. & W. Wood, 1851. 8vo. pp. 581.

These lectures we consider as a very timely and acceptable offering to the medical student, especially to the alumni of the college in which the author was a professor. We have seldom

listened to so practical and instructive a lecturer as the late Dr. John B. Beck, and therefore we have examined this volume with no ordinary feelings of pleasure. It bears the impress of the workings of that mind which labored long and faithfully to impress on the younger minds of the profession, those sound and practical precepts which characterized his lectures, and which it was his highest pride and ambition to impart. The lectures are published as delivered, with the exception of an occasional addition, which the progress of science required at the hand of the editor. We observe several additions made by the editor; these are judicious and timely, as an examination of those on Cod Liver Oil and Anæsthetics will abundantly prove. As a text-book for the student of medicine, and a work on the indications of treatment of diseases, this volume may be considered as among the first in our literature.

ART. XIV.—*Southern Medical Reports, consisting of General and Special Reports on the Medical Topography, Meteorology and prevalent diseases of the following States:* Louisiana, Alabama, Mississippi, North Carolina, South Carolina, Georgia, Florida, Arkansas, Tennessee, Texas and California. To be published annually. Edited by E. D. FENNER, M. D., of New-Orleans, Member of the American Medical Association, etc., etc. Vol. 2, 1850. New-Orleans: D. Davis, Son & Co. New-York: S. S. & W. Wood. 1851. 8vo. pp. 498.

In the number of this Journal for July, 1850, we had the pleasure of calling the attention of our readers to the first volume of this annual publication; on that occasion, we made a remark which we are called upon to repeat on this, viz., that "in the preparation of this interesting volume, its able editor has evinced great perseverance and zeal in the arduous and praiseworthy undertaking in which he is engaged, and we shall be disappointed if it does not receive the approbation of the profession, and especially of the southern portion of it, for whose literary and practical advancement it was conceived and brought forth." There is no lack of energy and discrimination in the preparation of this, and so sure as the first commanded the approbation of the medical press generally, so sure will this receive a greater meed of praise.

The principal topics treated of in this volume are the endemic

fevers, epidemic cholera and colic, medical topography and meteorology of the states, whose names are mentioned in the title. If good and faithful records of the origin, progress, nature, symptoms and treatment of endemic and epidemic diseases of a large portion our country can lay claim to practical value, we regard this work as one of the most valuable publications which has been made to our literature for a long time, while an increase in the amount of matter, with a reduction in the price of the present volume, will, we trust, command for it a sale commensurate with its true merits.

In the preface to this volume, we find the indulgence of the critic craved for the writings of the unpracticed contained in it; we find but little occasion for this, for we would that there were more such unpracticed writers to add to and support our native literature.

ART. XV.—*Elements of General and Pathological Anatomy, presenting a view of the present state of knowledge in these branches of Science.* By DAVID CRAIGIE, M. D., F. R. S. E., Fellow of the Royal College of Physicians, Edinburgh, etc., etc. Second edition, enlarged, revised and improved. Philadelphia: Lindsay & Blakiston. 1851. 8vo. pp. 1,072.

This is an elaborate work—a work which we have been accustomed to consult, frequently, since the first appearance of the *present* edition; for it will be seen, on a careful inspection, that it is the last original edition, with an American title page. This circumstance does not in the least impair its value; on the contrary, to those who estimate the value of the editions of their works by neatness of typography and clearness of paper, it will be received with the more pleasure. The arrangement of the work is that of defining definitely the normal anatomy of tissues, and then basing thereon the progress and effects of pathological processes; or, to use the words of the author, "I have chosen as the basis of arrangement, the distinctions of the component tissues of the animal body, as derived from the similitude and differences of their anatomical characters." The arrangement and manner of treating the subjects has commended itself to our favor, and we hesitate not to pronounce it one of the best compends of the elements of general and pathological anatomy within the reach of the American student or practitioner of medicine.

ART. XVI.—*Manual of Diseases of the Skin.* From the French of M.M. CAZENAVE and SCHEDEL, with Notes and Additions by THOS. H. BURGESS, M. D., Surgeon to the Blenheim-street Dispensary for Diseases of the Skin, etc., etc. Second American edition, enlarged and corrected from the last French edition, with Additional Notes, by H. D. BULKLEY, M. D., Physician of the New-York Hospital, etc., etc. New-York: S. S. & W. Wood. 1852. 8vo. pp. 348.

The reputation of this work is such, for clearness of description and practical utility, that there is needed, at our hands, no praise to bring this edition before the profession. We perceive that it has been prepared with especial care, and that the last French edition, published since the translation of Dr. Burgess's, has been used in the preparation of it. This fact alone will give it a superiority over all the others. Two articles, which were entirely re-written for the last original edition, have been translated for this; thus showing that the American editor has been actuated by a commendable spirit in the supervision of it. We most heartily recommend it to the continued confidence of the profession.

ART. XVII.—*Elements of Physiology, including Physiological Anatomy.* By WM. B. CARPENTER, M. D., F. R. S., F. G. S., Examiner in Physiology and Comparative Anatomy in the University of London; Author of the Principles of Human Physiology, etc., etc. Second American, from a new and revised London edition, with one hundred and ninety Illustrations. Philadelphia: Blanchard & Lea. 1851. 8vo. pp. 566.

As an elementary text-book, to which this volume only lays claim, we regard this work as one of the best that can be placed in the hands of the student of medicine at the commencement of his studies in physiology. From an advertisement, by the American publishers, we learn that it is republished here simultaneously with the last English edition revised by the author. Our *confrere*, Dr. F. G. Smith, of Philadelphia, having supervised the American proof sheets, we regard this fact as an additional testimony in its favor.

PART THIRD.

EDITORIAL AND

AMERICAN MEDICAL RETROSPECT.

COMMUNICATION.

A Novel Remedy for Small Pox. [The following communication was received through Dr. Rand, Resident Physician of the Seamens' Retreat, S. I., to whom it was sent by Dr. Cornwall. The data upon which Dr. Nogueira's conclusions are based, are, to say the least, limited. We are not inclined, however, on this account, to withhold it from our readers.—*Ed. N. Y. Jour. Med.*]

The following account of the employment of the vaccine virus as an internal remedy, was communicated to me by Dr. José Alves Nogueira, of Porto-Algre, Brazil, and is an abridged translation of his own original manuscript. Dr. N. is an eminent practitioner in this city, and has distinguished himself by important surgical operations, as well as by successful efforts to advance me ical science in this country, particularly in his accurate investigations of the specific effects of various powerful remedies in some of the most dangerous diseases, as belladonna in scarlet fever, and ergot in spermatorrhœa. His interesting papers on these subjects have already been published in the *Gazeta dos Hospitaes*, of Rio de Janeiro, and if circumstances allow, we may hereafter make some extracts therefrom. We will only add, in conclusion, that we hope the opinions advanced in the following narrative may be more fully tested and confirmed by the profession at large.

NATH'L O. CORNWALL, M. D.

Porto-Algre, Brazil, July 22d, 1851.

On the Vaccine Fluid as an Internal Remedy in Small Pox. By DR. JOSÉ ALVES NOGUEIRA, of Porto-Algre, Brazil.

The great number of patients which I have lost from small pox,

during fifteen years of practice, both while in charge of military hospitals, in which this disease is very prevalent, and in private practice in the city, has led to the use of a variety of remedies, none of which has produced such satisfactory effects as the vaccine pus diluted in water and taken internally. My first case was a negro, attacked with confluent small pox, which, in spite of all the ordinary antiphlogistic remedies, increased in violence until it threatened the life of the patient. At this time it occurred to me to make trial of the vaccine pus, which being a preventive, it might possibly possess the power of curing the disease; on the same principle that belladonna, so efficacious in the treatment of scarlet fever, is also a preservative against it. Experience alone will decide, and as my patient was rapidly growing worse, I resolved to put it to the test. Procuring a lamina of vaccine pus, of the purest quality, I dissolved it in an ounce of water, and gave him a tablespoonful in the morning. In the afternoon the fever had diminished, and I gave him another dose. He passed the night comfortably, and slept for the first time in three or four days; he awoke with some appetite, his face was much less swollen, and he could open his eyes. I gave him the remainder of the remedy, and he convalesced without farther treatment, except a dose of castor oil.

Case 2d. Child three years of age, whose body was completely covered with variolous pustules, nearly united to each other, especially on the face and extremities. It had an intense fever, disturbed sleep, vomiting, difficult deglutition, diarrhœa and delirium. Under the use of the ordinary remedies, the pustules had arrived at their greatest perfection, and at this moment I resolved to administer the vaccine pus. Soon after the first dose the little patient had a quiet sleep, the delirium ceased, the swelling diminished and it rapidly recovered.

Case 3d. Was a child, thirteen years of age, robust, and of sanguine temperament; two cases of this disease, in the same family, had recently proved fatal. When first called, I found the symptoms of small pox well developed, the pustules being so united that it was difficult to separate them; the mother and others of the family, terrified at the fatality of the disease, had abandoned their home, and, although they had never been vaccinated, could not be induced to submit to this operation.* My little patient was

* It appears incredible that, notwithstanding the government of Brazil spends a

left in charge of two ladies, who, with commendable charity, offered to nurse her. The disease ran an unusually violent course, the face appearing at one time to be a single pustule. With the exception of mild sudorific infusions, at first, I used no other remedy than the vaccine pus, taken as before described, and with the most complete success; the disease not leaving that disfiguration of the skin which is usual after recovery.

In conclusion, I may remark, that before using the vaccine internally, I applied it externally in the usual way, but without the least result. It is necessary that the pus be of the purest quality, taken from a healthy subject, before the period of suppuration, generally on the seventh or eighth day, while in a limpid state, and preserved on glass plates, or better, in glass tubes. I am not aware that any specific remedy, for combating the morbid effects of this terrible disease, has been suggested; but the vaccine matter, so well known to the profession as a preventive, when taken internally, I have found to be the most powerful agent that can be used for its cure, and may be considered as the specific remedy.

Hints on Cancerous Affections. By Prof. W. Stone.—In the last October number of the *New-Orleans Medical Register*, Dr. Stone called the attention of the profession to the use of the phosphate of lime and nitrogenous diet in depraved states of the system in scrofulous diatheses. In the December number he has the following remarks on the treatment of cancerous affections:

"Now, as it is believed that true cancer never occurs in decidedly scrofulous subjects, it is fair to infer that an opposite course of diet is more appropriate; and it is very probable that by directing our attention to the subject, we may be able to fix upon some agent that will aid in arresting the progress of this dreaded disease. Experience has shown that the least nitrogenous diet is best in this disease. In the memoirs of the celebrated Nathan Smith, written some twenty years ago by his son, Nathan R. Smith, of Baltimore, are found the views of this remarkable man, which were based purely upon observation, without a chemical idea to theorise upon. His diet for this disease was vegetable; and of this he thought green corn the best. A case is related of a lady on whom he operated for a very large cancerous breast, involving the glands of the axilla. It was in the season for green corn, and the patient was put upon this arti-

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great amount of money, annually, for vaccination, there die every year of small pox, upwards of a thousand persons; and still more incredible, that there are many families who will not be vaccinated, because they consider it entirely useless; this ignorance of the benefits of vaccination, however, exists principally in the interior.

cle of diet. Sufficient was gathered when in the milk, and dried, to last until the season reurned, and this made soft by boiling, and used with little or no seasoning. He states that whenever she attempted to return to her usual diet, she experienced shooting pains in the part, but finally, after two years, she gradually changed her diet. The notice of this case was given seven years after the operation, and there was no appearance of a return of the disease. Corn in this state contains, I believe, more phosphorus than any other vegetable, but whether this renders it more suitable to this disease, I am not prepared to say. Professor Bigelow, of Boston, relates a case in which diet kept a cancerous affection dormant, at least, for many years, or rather he states that it was gradually getting well. This was the case of the late distinguished surgeon, Amos Twitchell, of Keane, N. H., with whom I was well acquainted. I dined with him in 1848; he furnished a good dinner for his guests, but dined himself on milk and berries. Vegetables of the blandest kind constituted his main food, but I do not think he confined himself to any one article. The disease was seated in the inner canthus of one of his eyes, was removed many years ago with the knife, but the cicatrix soon took on the same degeneration, and he relied upon diet; and although it might appear to a gourmand a very meagre diet, he was able to undergo more fatigue at the age of 64 than many young men. I mention these cases not as being remarkable in themselves, but because they illustrate the effect of diet, and at the same time cover the views of two medical men, remarkable for their powers of observation.

As a remedy to be given in aid of diet, I think arsenic, with our present knowledge, is the best. There was an able article in the *London Lancet*, I think, in the fall of 1849, on the use of arsenic in lupus and cancroid diseases, which was interesting because it showed how it should be given to be useful. The preparation used was Fowler's solution, in doses of from two to five drops, and continued for a long time. The writer also called attention to the fact, that instead of increasing the dose after long use, it should be diminished. I have always contended that alteratives, to be useful, should be given in such doses as will not disturb the natural functions. The solution is advised in such doses as will permit its use for an indefinite length of time, without producing any manifest specific effects. I have great confidence that this, together with diet, will exercise a very salutary influence over this dreaded disease."

To the Medical Profession in New-England and New-York.—The undersigned, a committee of the American Medical Association on the epidemics of New-England and New-York, would invite the attention of the profession, within the limits above named, to the subject of their investigations. It is obvious, that the value of the report which will be made, must depend upon the accuracy

and the extent of the information which the committee may be able to gather. And for this information we must look to observers in different portions of the field assigned to us. If the physicians in each district of this field would see that some one of their number report to us what may be called the general facts in regard to the prevalence of epidemics, and then, if individuals would give us the results of their personal experience in practice, a fund of valuable information would be placed in our hands. The points of inquiry to which attention should be directed, are so obvious, that the committee need not to particularize them. The investigation is intended to cover only the year ending December 31, 1851.

In order that the committee may have time to collate and digest the materials which they may receive, they request that all communications be made to them previous to the 1st of March next.

Worthington Hooker, *Norwich, Conn.*,
Henry D. Bulkley, *New-York*,
Henry G. Clark, *Boston.*

Dec. 15, 1851.

Medicinal Extracts—Recently we have received from the laboratory of Messrs. Tilden & Co., specimens of some extracts, to which we are desirous of calling the particular attention of our readers. Those to which we would more particularly refer, are the Extract of Lactucarium, or Garden Lettuce, and Extract of Leontodon Taraxacum, prepared entirely from the root of the plant. These extracts, we find from use, are of superior quality, and will, we feel quite certain, tend greatly to increase the reputation of the house from which they are prepared.

OBITUARY.

Death of Prof. N. Hard. At his residence, in Aurora, Ill., on the 16th of October last, of dysentery. From our cotemporary, the *Western Medico-Chirurgical Journal*, we learn that he was comparatively a young man, but occupied a distinguished position in the ranks of the profession in the West. "He was an indefatigable student, a successful practitioner, an able and accomplished lecturer, and eminently adorned the profession by his great moral worth, and the purity of his private and professional character." He was, at the time of his death, Professor of Anatomy in the College of Physicians and Surgeons of the Iowa University. His contributions to the periodical literature of the profession were many and valuable.

Death of John Kearny Rogers, M. D. In this city, on the 9th of November last, of portal phlebitis, aged 58 years. We need hardly say that he was a distinguished member of our profession, one whose loss has been seriously felt by us all. He was born in 1793, and was the son of Dr. J. R. B. Rogers, a practitioner in this city, of great eminence. He was educated at Princeton, N. J., and

studied medicine in this city, under the late Prof. Wright Post, of the College of Physicians and Surgeons. He graduated in 1816, and was at one time House Surgeon to the New-York Hospital. Soon after the completion of his professional studies, he went to Europe, where he spent two years, either in Paris or London, principally in the latter, where he attended the lectures of Sir Astley Cooper, Mr. Benjamin Brodie, Travers, Abernethy, &c., who soon discovered in him the evidences of great promise, and extended to him those marks of attention, which gave evidence of their estimate of his character and ability. Two years after his return to this country, viz., 1820, he, in connection with Dr. Delafield, established the New-York Eye and Ear Infirmary. In 1822 he was appointed one of the Surgeons of the New-York Hospital, a post which he continued to fill, with distinguished ability, up to the time of his death. Dr. Rogers was, in an eminent degree, practical and truthful in all his habits, and to these traits may we attribute his great abhorrence to quackery, in all its forms. As an operator, he was alike distinguished for his ease and adroitness, and as a man for his sterling integrity and noble and generous mind. He never disguised the truth for the *eclat* of an operation. His principal operation, one which will do him honor throughout the surgical world, and all time, was the ligation of the left subclavian artery, within the scaleni muscles, in 1846, and recorded in the 7th volume of this Journal. His contributions to our periodical medical literature were not numerous, but yet sufficient to leave a mark which will not be easily erased. His death is deeply deplored by us all. The New-York Academy of Medicine, of which he was one of the Vice-Presidents, the New-York County Medical Society, and the Trustees and Students of the College of Physicians and Surgeons, passed appropriate resolutions on the occasion of his decease. The following resolutions have been sent us for publication:

College of Physicians and Surgeons.—At a meeting of the Class of 1851–52, of this Institution, held in the College Hall, on the 10th instant, the following Resolutions were unanimously adopted:

Resolved, That the Class have heard with great regret of the death of J. Kearny Rogers, M. D., a Trustee of this College, and a Surgeon of the New-York Hospital.

Resolved, That while the Class would leave to others more competent to form and express opinions on the subject, the task of commemorating the general professional merits of Dr. Rogers, they esteem it a privilege to put on record their deep sense of the kindness and courtesy with which he was ever ready to give to all around him the benefit of his enlarged knowledge and ripe experience.

Resolved, That in presenting to this College his large and valuable collection of anatomical and pathological specimens, Dr. Rogers manifested alike his attachment to his alma mater, and his interest in medical education, and gained for himself a claim on the grateful remembrance of all future students of the Institution.

Resolved, That these Resolutions be published in the New-York Journal of Medicine, New-York Medical Times, Journal of Commerce and Courier and Enquirer, and a copy of them be forwarded, with the most respectful and heartfelt sympathy of the Class, to the family of the deceased.

J. Bryant Smith, *Secretary.*

F. U. Johnston, Jr., *Chairman.*

New-York, November 13th, 1851.

Death of Prof. Granville Sharpe Pattison. In this city, on the 12th of November, after a short illness, of obstruction of the ductus communis choledocus, aged sixty years. As is well known, he was Professor of Anatomy in the Medical Department of the New-York University, a position which he has held since its organization. He was a native of Scotland, a graduate of the University of Glasgow, and a pupil and friend of Allan Burns, the immortal author of "*Observations on the Surgical Anatomy of the Head and Neck.*" In 1818, he came to this country, and in 1820 accepted the appointment of Professor of Surgery in the University of Maryland. After occupying this position for a number of years, he returned to Europe, and soon after received the appointment of Professor of Anatomy in the London University. This post he occupied for a short time, after which he resigned his professorship and returned to the United States, and in 1831 accepted the Professorship of Anatomy in the Jefferson Medical College of Philadelphia. In 1840, on the re-organization of the Medical Department of the New-York University, Dr. Pattison received the appointment of Professor of Anatomy, which chair he continued to fill till his death. As a lecturer, Dr. Pattison was able and accomplished, and had but few, *if any superiors;* his teachings were characterized with singular clearness and precision. As a writer, he contributed somewhat largely to our periodical literature. In 1820, he was associated with Eberle Ducachet and Revere, in the editorship of *The American Medical Recorder*, a journal which contains many of his contributions. On the occasion of his death, the following resolutions were passed by the faculty:

At a meeting of the Medical Faculty of the University of New-York, held November 12th, 1851, the death of Prof. Pattison having been announced by the President, the following preamble and resolutions were adopted:

Whereas, it has pleased Almighty God to remove from among us our late colleague, Professor Granville Sharpe Pattison:

Resolved, That we have heard with profound regret of the death of our late associate, in whom we recognise the attributes of a Christian, and the worth of an able and faithful colleague.

Resolved, That in the death of Professor Pattison, the University has sustained a heavy loss, and science been deprived of one of its most ardent advocates.

Resolved, That in honor of his memory, the members of this Faculty will wear crape on their left arms for thirty days.

Resolved, That a copy of this preamble and resolutions be sent to his widow, with the sincere condolence of the Medical Faculty.

Jno. W. Draper, M. D., *President.*

Death of James R. Manley, M. D. In this city, on the 21st of November, aged 70 years. He was a native of this city. He received his literary education at Columbia College, where he graduated in 1802. In 1805, he received his degree of Doctor in Medicine from the Medical Faculty of the same institution, and defended an able thesis on yellow fever. During the long professional period of forty-five years, he received many evidences of marked professional distinction. At various times he was successively President of the County Medical Society, of the State

Medical Society, Resident Physician of the city, Lecturer on Obstetrics in the College of Physicians and Surgeons, Vice-President of the New-York Academy of Medicine, &c., &c. He was Censor of the Southern District of the State Medical Society for many years, and in 1849 delivered the annual oration before the Academy of Medicine. In 1818, he was associated with Pascalis and Ackerly in the editorship of the *New-York Medical Repository*. His medical writings are confined principally to our periodical medical literature, which shows many contributions from his pen, indicative of a sound and comprehensive mind, trained to thought and reflection. He was a man of great decision of character and of acknowledged ability. His professional integrity knew no spots tarnished by time or worldly gain. His abhorrence to quackery in all its forms was, we had almost said, vindictive in the extreme. On the occasion of his death, the New-York Academy of Medicine, and the Medical Board of Bellevue Hospital, of which he was a member, passed appropriate resolutions.

Death of James E. De Kay, M. D. At his residence, Oyster Bay, L. I., on the 21st of November, aged 59 years. Dr. De Kay was, we believe, a native of this city, and received his literary education at Columbia College, and medical degree at the College of Physicians and Surgeons. Having a strong predeliction for the study of natural history, he devoted almost the entire energies of his thoroughly-trained mind to the study of it. In 1836, when the geological survey of this state was ordered by the legislature, the interesting department of Zoology was assigned to him, and four volumes of that masterly work are mainly the results of his labors, viz: Mammalia, Aves, Pisces et Reptilia and Conchologia. His physical strength became decidedly and irrecoverably impaired in this gigantic labor; and he died a martyr to the science to which he was so devotedly attached.

Death of James Cameron, M. D. On the 12th of December, in this city, aged 66 years. He was a native of Scotland, and a graduate of the University of Glasgow. For upwards of thirty years he had been extensively engaged in the practice of medicine in this city. He was a devoted friend of the Academy of Medicine, a Manager of the Society for the Relief of Widows and Orphans of Medical Men; and, above all, an upright, honest man, and a Christian.

Death of John Vanderpoel, M. D. At Valatir, Columbia County, October 28, 1851, in his fifty-sixth year. For more than thirty years, Dr. Vanderpoel had been active and untiring in the practice of his profession; possessed of great energy and force of character, his labors extended over a large field, while no fatigue or distance prevented even the poorest from receiving a full degree of care and attention. His death occasions many a tear of regret, not only among his family and immediate friends, but from those who had so long resorted to his aid in sickness and distress. As a man, he was influential and widely respected; as a husband and father, he was beloved and venerated.

TO READERS AND CORRESPONDENTS.

SEVERAL articles received for the present number are on file, and shall receive early attention. We regret that an article on typhus fever, with several illustrations, by J. B. Upham, of Boston, must be deferred to the May number of the Journal.

The following works have been received since our last:

A System of Operative Surgery, based upon the Practice of Surgeons in the United States, and comprising a Bibliographical Index and Historical Record of many of their Operations during a period of two hundred years. By HENRY H. SMITH, M. D., Surgeon to St. Joseph's Hospital, Assistant Lecturer on Demonstrative Surgery in the University of Pennsylvania, etc., etc. Illustrated by numerous steel engravings. Philadelphia: Lippencott, Grambo & Co., 1852, Parts 1, 2, 8vo., pp. 220. (From the Publishers.)

A Treatise on the Diseases of the Chest: being a Course of Lectures delivered at the New-York Hospital. By JOHN A. SWETT, M. D., Physician to the New-York Hospital; Member of the New-York Pathological Society. New-York: D. Appleton & Co., 1852, 8vo., pp. 585. (From the Publishers.)

An Analytical Compendium of the Various Branches of Medical Science for the Use and Examination of Students. By JOHN NEILL, M. D., Surgeon to Will's Hospital, Demonstrator of Anatomy in the University of Pennsylvania, etc., etc., and FRANCIS GURNEY SMITH, M. D., Lecturer on Physiology in the Philadelphia Association for Medical Instruction; Physician to St. Joseph's Hospital, etc., etc. Second edition. Revised and improved. Philadelphia: Blanchard & Lea, 1852, 12mo., pp. 1,002. (From the Publishers.)

This is an enlarged and improved edition of a work which we are pleased to see has become deservedly popular among students, for whom it was particularly designed.

The Medical Student's Vade-Mecum: a Compendium of Anatomy, Physiology, Chemistry, Materia Medica and Pharmacy, Surgery, Obstetrics, Practice of Medicine, Diseases of the Skin, Poisons, etc., etc. By GEORGE MENDENHALL, M. D., Lecturer on Obstetrics in the Medical Institute of Cincinnati, etc. Third edition. Revised and greatly enlarged, with two hundred and twenty-four engravings. Philadelphia: Lindsay & Blakiston, 1852, 12mo., pp. 690. (From the Publishers.)

Outlines of the Arteries: with short descriptions. Designed for the Use of Medical Students. By JOHN NEILL, A. M., M. D., Surgeon to Will's Hospital; Demonstrator of Anatomy in the University of Pennsylvania. Second edition. Philadelphia: Barrington & Haswell, 1852, large 8vo., pp. 28, with six plates. From the Publishers.)

Review of Materia Medica, for the Use of Students. By JOHN BIDDLE, M. D., formerly Professor of Materia Medica in the Franklin Medical College of Philadelphia; Physician to the Pennsylvania Institution for the Deaf and Dumb, etc., etc., with illustrations. Philadelphia: Lindsay & Blakiston, 1852, 12mo., pp. 332. (From the Publishers.)

An excellent Manual for the Medical Student—one, that should it be used as intended by the author, would aid materially in surmounting the difficulties which lie in the way of acquiring a thorough knowledge of the Materia Medica.

A Treatise on the Anatomy, Physiology and Diseases of the Human Ear. By JAMES BRYAN, M. D., Professor of Surgery in Geneva Medical College; Professor of the Institutes of Medicine and Medical Jurisprudence in the Philadelphia College of Medicine, etc., etc. Philadelphia: Published by the Author, 1851, 12mo., pp. 124. (From the Author.)

Quarterly Summary of the Transactions of the College of Physicians of Philadelphia, from November 4th, 1851, to January 6th, 1852, inclusive. Philadelphia: Lippencott, Grambo & Co., successors to Gregg, Elliott & Co., 1852, 8vo., pp. 62. (From the Publishers.)

Meteorological Register for twelve years, from 1831 to 1842, inclusive; Compiled from Observations made by the Officers of the Medical Department of the Army at the Military Posts of the United States. Prepared under the direction of Brevet Brig. Gen. THOMAS LAWSON, Surgeon-General United States Army. Washington, 1851, 8vo., pp. 324. (From the Surgeon-General.)

A History of Epidemic Cholera as it appeared at the Baltimore City and County Alms House in the Summer of 1849. With some remarks on the Medical Topography and Diseases of this Region. By TH. H. BUCKLER, Physician to the Baltimore City and County Alms House, Baltimore, 1851, 8vo., pp. 45. (From the Author.)

A Table of all the Known Operations of Ovariotomy, from 1701 *to* 1851, *comprising two hundred and twenty-two cases;* including their Synoptical History and Analysis. By WASHINGTON ATLEE, M. D., Professor of Medical Chemistry in the Medical Department of Pennsylvania College, Philadelphia. [Extracted from the Transactions of the American Medical Association for private distribution.] Philadelphia, 1851, 8vo., pp. 37. (From the Author.)

Contributions to Obstetrics, with Tabular Views and Miscellaneous Practical Observations. By H. A. RAMSAY, M. D., Philadelphia, 1851, 8vo., pp. 16. (From the Author.)

Logic, in its Relations to Medical Science.—An Address delivered before the Starling Medical College, at its Third Annual Commencement. By EDWARD THOMPSON, M. D., D. D. Published by order of the Faculty. Columbus, 1851, 8vo., pp. 17. (From the Author.)

The Study and Practice of Medicine not Unfavorable to the Cultivation of a Religious Character.—A Sermon preached by request before the Medical Class of the University in the city of Buffalo, December 8th, 1851. By M. LA RUE P. THOMPSON, D. D. Buffalo, 1852, 8vo., pp. 28. (From the Class.)

The Annual Address to the Graduating Class in the Medical Institution of Yale College, January 15th, 1852. By ALVAN TALCOTT, M. D. In behalf of the Board of Examiners. New-Haven, 1852, 8vo., pp. 18. (From the Author.)

The Retrospect of Medicine, being a half-yearly Journal. By W. BAITHWAITE. July to December, 1851. London: Simpkin, Marshall & Co., 1852, 12mo., pp. 492. (From the Publishers.)

The Half-Yearly Abstract of the Medical Sciences. By W. H. RANKIN, M. D. July to December, 1851. London Edition. John Churchill, 1852, 12mo., pp. 395, Also American Edition of the same. Philadelphia: Lindsay & Blakiston, 1852, 8vo., pp. 296. (From the Publishers.)

Lectures on the Science of Life Insurance. Addressed to Families, Societies, Trades, Professions—Considerate Persons of all classes. By MOSES L. KNAPP, M. D., late President and Professor of Materia in the College of Physicians and Surgeons of the University of Iowa, etc., etc. Philadelphia: E. T. Jones & Co., 1851, 8vo., pp. 32., No. 1. (From the Publishers.)

This work is to be published in Six Parts, bi-monthly, at the extreme low price of One Shilling per part. It should be in the hands of every one interested in the subject of Life Insurance.

The following Journals have been received in exchange:

The American Journal of the Medical Sciences; edited by ISAAC HAYS, M. D.; for January. (Quarterly. Philadelphia.)

The American Journal of Insanity; edited by the officers of the N. Y. State Lunatic Asylum; for January. (Quarterly. Utica.)

The American Journal of Pharmacy; edited by JOSEPH CARSON, M. D., and WM. PROCTOR, M. D.; for January. (Quarterly. Philadelphia.)

The New-Jersey Medical Reporter and Transactions of the New-Jersey Medical Society; edited by JOSEPH PARISH, M. D.; for January and February. (Monthly. Burlington.)

The Medical Examiner and Record of Medical Science; edited by F. G. SMITH, M. D., and JOHN B. BIDDLE, M. D.; for January and February. (Monthly. Philadelphia.)

The Charleston Medical Journal and Review; edited by D. J. CAIN, M. D., and F. P. PORCHER, M. D.; for January. (Bi-monthly. Charleston.)

The New-Orleans Medical and Surgical Journal, devoted to Medicine and the Collateral Sciences; edited by A. HESTER, M. D.; for January. (Bi-monthly. New-Orleans.)

Southern Medical and Surgical Journal; edited by L. A. DUGAS, M. D.; for January and February. (Monthly. Augusta.)

Buffalo Medical Journal and Monthly Review of Medical and Surgical Science; edited by AUSTIN FLINT, M. D.; for January and February. (Monthly. Buffalo.)

The North-Western Medical and Surgical Journal; edited by J. Evans, M. D.; for January. (Bi-monthly. Chicago and Indianapolis.)

Transylvania Medical Journal; edited by Ethelbert Dudley, M. D.; for January and February. (Semi-monthly. Lexington.)

The Western Lancet and Hospital Reporter; edited by L. Lawson, M. D., and George Mendenhall, M. D.; for January and February. (Monthly. Cincinnati.)

New-York Medical Times; edited by J. G. Adams, M. D.; for January and February. (Monthly. New-York.)

The New-York Medical Gazette; edited by D. M. Reese, M. D.; for January and February. (Semi-monthly. New-York.)

The Boston Medical and Surgical Journal; edited by J. C. V. Smith, M. D.; January and February numbers received. (Weekly. Boston.)

The Western Journal of Medicine and Surgery; edited by L. P. Yandell, M. D., and T. S. Bell, M. D.; for January and February. (Monthly. Louisville.)

The Ohio Medical and Surgical Journal; edited by Richard L. Howard, M. D., for January. (Bi-monthly. Columbus.)

The Stethoscope and Virginia Medical Gazette; edited by P. Claiborne Gooch, M. D.; for January and February. (Monthly. Richmond, Va.)

Nashville Journal of Medicine and Surgery; edited by W. K. Bowling, M. D., and Paul F. Eve, M. D.; for January. (Bi-monthly. Nashville, Tenn.)

The New-Orleans Monthly Medical Register; edited by A. Forster Axson, M. D., for January and February. (Monthly. N. O.)

Nelson's Northern Lancet and American Journal of Medical Jurisprudence; edited by Horace Nelson, M. D.; for January and February. (Monthly. Plattsburgh, N. Y.)

The New-Hampshire Journal of Medicine; edited by Edward H. Parker, A. M., M. D.; for January and February. (Monthly. Concord, N. H.)

The Western Medico-Chirurgical Journal; edited by J. F. Sanford, M. D., and Samuel G. Amor, M. D.; no numbers received since November last. (Monthly. Keokuk, Iowa.)

The British American Medical and Physical Journal; edited by Archibald Hall, M. D., L. R. C. S. E.; for January and February. (Monthly. Montreal.)

The Journal of Psychological Medicine and Mental Pathology; edited by Forbes Winslow, M. D.; for January. (Quarterly. London.)

Dublin Quarterly Journal of Medical Science; edited by ———; for February. (Quarterly. Dublin, Ireland.)

Dublin Medical Press; edited by ———; for December and January. (Weekly. Dublin.)

London Medical Gazette, or Journal of Practical Medicine; edited by ———; for December. (Weekly. London.)

London Journal of Medicine; a Monthly Record of the Medical Sciences; edited by ———; for January and February. (Monthly. London.)

Monthly Journal of Medical Science; edited by Wm. Robertson, M. D.; for December and January. (Monthly. Edinburgh.)

The British and Foreign Medico-Chirurgical Review for October. (Quarterly. New-York Edition.)

☞ Communications intended for publication, and Books for review, should be sent, *free of expense*, directed to Dr. Purple, editor of the New-York Journal of Medicine, 45 Wall-street, *New-York*. Persons at a distance may direct parcels, *paid* as above, under cover, to M. Hector Bossange, Lib. quai Voltaire, No. 11, *Paris;* or Delf & Trübner, 12 Paternoster Row, *London;* or Lindsay & Blakiston, *Philadelphia;* or Wm. B. Ticknor & Co., *Boston*. The attention of Correspondents is respectfully requested to the above, as the publishers are frequently subject to unnecessary expense for postage and carriage.

All remittances of money and letters on the *business* of the Journal, should be directed to the publishers.

The advertising sheet belongs to the business department of the Journal, and all communications for it should be addressed to the publishers, under whose exclusive control it is.

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